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Principal Teachers' College High School

VISION, OR HOW EXTENDED IS YOUR HORIZON

Alumni Address by Francis Wayland Russell, '90

Certainly many memories gather about such a reunion as this meeting. Some of them are fragrant in the remembrance of friendships and lives that have graciously influenced our days and plans. Still there must be sadness of heart by the vision of the vacant place, for with the speeding of the years, faces that we once knew, we know no more. The swift decades whisper so distinctly that time is fleeting, and that for many of us the graduation day was long ago. But may we not say with Holmes, as we look about us,

"So the gray Boatswain of 'Twenty-nine,'
Piped to the 'Boys' as they crossed the line;
Round the cabin sat thirty guests,
Babes of the nurse with a thousand breasts.

There were judges, grave and grand,
Flanked by the priests on either hand;
There was the lord of wealth untold,
And the dear good fellow in broadcloth old.

Thirty men from twenty towns,
Sires and gransires with silvered crowns,—
Thirty school boys all in a row,—
Bens and Georges, and Bill and Joe.

In thirty goblets the wine was poured,
But threescore gathered around the board,—
For lo! at the side of every chair
A shadow hovered—we all were there!"

Some months since I was most rudely awakened from the iridescent dream that my life was in close touch with our Alma Mater. The occasion was the visit of the 'Varsity football team to play Washington University, in St. Louis. I could not attend this game and hence called the captain by 'phone at his hotel, that I might express to him my well wishes, and extend to him—even at risk of city disloyalty—the hope of victory. Thanking me for my kindness and interest, he asked when I graduated. I answered. I heard his prolonged whistle of overwhelming surprise. Then his heart breaking sentence, "My, but that was a long time ago!" So deep was the gloom penetrating my heart thereat in the sudden realization of my advancing age, that I have entirely forgotten whether his "Eleven" won or lost. I almost hope it lost.

It was my pleasure, some year since, to attend an Alumnae meeting at Vassar College. O, yes, I am an alumnus of that illustrious institution—I chanced to be the only man—think of it gentlemen—to sit at luncheon with two hundred and fifty ladies. Of course I was exceedingly well chaperoned by my wife. There was an address by an "Old Grad" to the class of that year, and she read what purported to be a note found upon the campus and written by some "sweet young thing" just graduating—becomingly begowned—to one of her friends and classmates. In that letter she expressed her horror and indeed resentment at the ancient gowns and looks of "these old girls that have come back for commencement." She wondered why people wore such outlandish costumes in the long ago. And, if I recall correctly, she styled them "frumps" and "frights," and many other loving and endearing terms, such as kindly and gracious ladies use when they are discussing the creations worn by the other woman. She further asked her friend, "What are they doing here anyway? We don't want them." And the old graduate answered in a voice so sweet and lovely, "Dear girls, we were once as you are. And as we are you will be some day." This is but a hint to the class of 1911.

But this is neither the time nor place for reminiscences that shall cut the nerve of present action. For if a man thinks in the past, he lives in the past, and that is to die. But to think for the future and live unto the future is life indeed. The past is valuable for its lessons of warning and wisdom: the present for intensity of action and service; the future for plans and purposes and trust. We need to use the past as a stepping stone by which we may mount to higher and better life and achievement.

Many centuries since, in the World of large Wisdom, it was said, "where there is no vision the people perish." That is as true today and for us, as it was true in the day of its writing and to the immediate people to whom it was addressed and for whom it was primarily intended. To a very great extent each man makes or mars his own life and destiny. Vision that looks far and clear is architectonic. You remember, perhaps, what Washington Roebbling said when he was taken to see the Brooklyn bridge for the first time. As he sat quietly looking upon the magnificent granite piers, the stretch of steel spanning the river in the grandeur of its beauty, the question was asked him, "How does it look, Mr. Roebbling?" And he answered, "It looks just as I thot it would." Before a block of granite had been sunken in the river bed; before a piece of steel had been forged for the construction, he had seen the whole bridge complete and perfect in every part, in the inner vision of the mind. Masons and steel men, carpenters and builders did but carry out and visualize in structural stuff his mental picture.

We must believe that very largely every man bounds his own horizon. It is true mentally,—will you permit me also to say spiritually—as well as geographically, that elevation extends the circle of vision. Two summers ago, spending some weeks in Colorado, I climbed to the summit of Cameron's Cone. It was a stiff piece of work that taxed limbs and strength. But from the crest the view was superb. Looking far to the westward the mountains, instead of being isolated hills or ridges, presented the aspect of organization and interrelation. Ridges ran into ridges in most intricate and wonderful beauty. All that harmony was lost in the valley, but revealed in the altitude. Such is life. True elevation in mind or heart discovers relationships and harmonies where they had never before been dreamed.

In life two extremes today present themselves to us, and both should be avoided. Here, as usual, the golden mean is best. There is one extreme of narrowness; a most limited horizon; a most circumscribed vision. That position is accurately exemplified in the passing story of the Chicago man, who, finding himself stranded at an evening's entertainment, was approached by his hostess and asked most

graciously and solicitously if he were enjoying the evening. He brusquely, but truthfully answered that he was not as he had found no one with whom he could talk "nails." Nails formed his life horizon and aside from them he knew or cared for nothing else. I can conceive no graduate from this university, that has always stood for the most perfect aspects of a true culture and rounded education, ever finding himself in such an unenviable and embarrassing position.

The other extreme is that broad superficial life, knowing much of many things, but little of anything. We are in grave danger of that today, for the spirit of liberalism is abroad in the land. Such liberalism may become so thin as to be in danger of disruption because of its own weakness, leaving a dreadful gap through which all sorts of overwhelming disasters may come. The true position is marked by the profoundly significant words of Professor Edward S. Dana, when he said, speaking of the educated man of culture: "The man of fine culture must know much of many things, and some one thing exhaustively."

At this point I wish to lodge my earnest protest against that system of education that sends a student into too early specialization. I have seen men, and so have you, in the exigencies of modern circumstances, suddenly compelled to change the whole plan, purpose, scope and meaning of their life work. And they have been tremendously handicapped all their subsequent years. The special preparation, so laboriously undertaken and so faithfully carried out, was in the end about so much impedimenta. There was lacking that true and catholic education that should ground a man in great fundamentals.

Of course this is no demurrer, nor do I think anyone will take it as such, against special study at its proper time and place. Rather what I plead for is a more comprehensive, extended, general and balanced training in education that shall place the undergraduate en rapport with the largest field of culture, and then at the correct time and way let him enter most detailed and crucial, the poised, specialization for his profession, whatever that may be. It gives me great joy to say that some of the most eminent college presidents, professors and educators share this position with me. You have no doubt heard of that New Hampshire farmer, who, reading for the first time Plato's Republic, said "that air Plato has stolen some of my ideas." A word hence to the wise will be sufficient. May this University ever stand for the truest and broadest culture.

I shall not enter into the discussion of the immediate and critical preparation for his profession, nor would I have this specialization go so far as to shut out a vision of the larger, and may I say, truer side of educational culture. I would not have even a look toward the position of the German professor, who, asking his student what he intended to take as his specialty, received in answer the response, "the nostrils." "Good," said the professor, and then immediately asked, "but which one?"

Thus the question for each of us is "how large is my vision, or how wide is my world?" Along what lines may I steadfastly and purposefully widen it? For, as I have said before, it is largely possible for each man to make his own horizon.

Meeting today in the city of Lincoln we can but think of the man for whom it is named. He is our concrete example. You catch your first sight of a boy in a log cabin, crouched before a fireplace, burning a pine knot, but storing his mind and heart with great truths and facts. Behold that life ever widening and heightening till you have at last the great heart and mind, honored, revered, beloved of men—Abraham Lincoln.

Times have marvelously changed in the last few decades. Our grandfathers thought in counties; we in continents. Our grandfather's horizon was practically limited by the immediate circle in which he moved. The horizon for our grandmothers was even smaller. But we, their grandsons and daughters, are living in a new world. One that is athrob with a new life and possibility. It has been said that "the bigness of the modern man and the littleness of the modern world are Twentieth Century discoveries." To his natural forces man has added the steamship, the locomotive, the airship, the submarine cable, and wireless telegraphy. Now like Alexander of old, he asks for more worlds to conquer. His grasp includes the world. He has grown to a true colossus.

To man then this test needs to be profoundly proposed. What is the value of this world grasp? To what purpose is this world vision? Is it one primarily selfish or come there into it unselfish, altruistic ideals that we shall strive with all this immense power we have to make glorious actualities? There is a possibility after all that this great grasp shall not be most splendidly efficient, and that the extended vision shall be unto the dwarfing of the truest self. For balanced vision must be both extensive and intensive. It must look out and in and up.

Great vision means that I will try to see the good in the world and in my neighbor. That I will keep my mind and heart in touch with the great things of the universe. That I will strive to make some one happier daily and help men along in the burdens and perplexities of life. That vision means for us a true and correct cosmopolitanism. It brings me into most sympathetic insight and touch with the lives of others. It enables me to apprehend their besetments and needs and then to effectively help.

There are two ways to meet a man who needs help—there is but one way to help him. Even as every teacher knows there are two ways of answering the questions of a pupil, though but one way to help him. One method of meeting the pupil's question is to take position against him, make points against him and turn him into ridicule. And this, with superior knowledge, is not at all difficult to do. It may be done and the real difficulty remain quite unrelieved. The scholar cannot repel your attack, but you have not convinced him. The other way and true, is to place yourself at his viewpoint, follow his difficulty; reason it yourself from that position. Better still, reason for him as you did for yourself when you were where he is. So I say that no man can really help his age until he has gotten a great vision of its life and need; is enabled to follow its difficulties; to sympathetically understand it and to lovingly strive to help it. We need the second way, the one of appreciative understanding.

Alas it is true that there are men at the present whose vision is bounded by accumulation. To them the world is money and like John Jacob Astor of

old, they will be satisfied when they have made another dollar. Or in the graphic language of a Nebraskan upon the floor of the House of Representatives, he one day characterized a certain Nebraska farmer, saying, "his sole idea was to raise more corn to feed more hogs to buy more land to raise more corn to feed more hogs," and so like Tennyson's brook go on forever. And there is that danger today. There are so many material aspects of our civilization; money means so much, that some men think it means all. I would we might all remember the difinition of money printed in the London Times, "money is something that will purchase everything, except happiness, and take you everywhere except heaven." And there are foolish men who seemingly think these two exceptions do not hold. And so it comes to pass that in the materialistic and commercial view of life we have a bread and butter philosophy. We want a practical education, meaning thereby one that will most surely and swiftly enable the possessor to make money. What is it going to do for her?" asked one friend of a mother when the latter's daughter was going to an eastern college. That means how much more will it enable her to earn. Money basis. Therefore there are men—perhaps more than would really admit it in the open—who look upon a college or university training as only valuable when it enables one to earn the largest salary or income. There can be no doubt that these temptations to commercialism are terrific. A commercialism that insinuates or with Li Hung Shang politely avers that success is not what a men is but what he has. That to make a living is more than to make a life or character. That accumulation is more than a career, blessing the world. That the summum bonum is to "get on"; that life is a money making game and when we lose we are "set back."

Perhaps those of us who have been away from university days for some years have lost something of the breadth of vision. Life has come to be prosaic and duty laden. Many responsibilities press upon shoulders and hearts. If so we need the larger vision. Remember what has been said, "where there is no vision the people perish." This is most true today. Vision needs to go beyond self and selfish interests. Remember the story of the woman who, finding her eyesight failing through too assiduous confinement to her desk, consulted her occulist and asked him what she should do. Finishing his examination he said to her, "is there not a room in your house where you can look off to the hills?" "Yes," she said, "from my study window there is a beautiful vision of the Blue Ridge." "Leave your studies" said the wise oculist," rest your eyes by the vision toward the mountains." That is true in life, both mentally and spiritually, as well as physically. Looking beyond the selfish circle, the truest question and the rightful one is, not how much can I get from the world, but how much can I give to it.

For there is such a thing as the debt of equipment. We have received, and that most richly, and if we are decent or honest we will desire to pass forward, unimpaired, our inheritance. Be conservatives, in the true meaning of the word. This is but one phase of personal responsibility. In other words what constitutes an education is becoming clear. It is not solely a process of acquirement, but it is coming to one's self. It is awakening to great ideas and exemplifying life in terms of real value, espousing a great cause. What Nicholas Murray Butler defines as "the coming into possession of the great spiritual inheritances of the race." Other men have labored and we have entered into their labors. If our vision and conception are true and right we must labor that those coming after us may also be the gainers. The age in which we live should be most distinctly enriched by the character and service of our days.

We would have that unselfish vision of life and that conception of service which were so beautifully characterized by Wendell Philips in his immortal sentence, "How silently do most men sink into the oblivion of nameless graves; while some few forget themselves unto immortality."

The world will never fully pay its debt to the Earl of Shaftesbury for his vision of philanthropy and incentive, nor can we estimate the service through the loving heart of John Howard; and what shall we match against the womanly love and consecration of Florence Nightingale and Clara Barton and the effects of the life of Florence Crittenden. They saw; they forgot self; they splendidly served their day and generation, and other days and generations as well, and "falling on sleep, though they be dead, they still speak."

Concluding may I tell you in the fewest possible words, the story of an invested life; the life of President John F. Goucher of the Woman's College of Baltimore.

"An American traveler tossed restlessly on his berth in a sleeping-car in Northern India. Oppressed by the stuffy compartment, he looked at his watch and the timetable and found that it would soon be 5 o'clock, when the train would stop to change engines. So he arose, dressed, and was ready for a stroll on the platform when the train came to a standstill. The dawn was breaking, and nobody was in sight except the railway employes and one native. As the American walked along, this man drew near, eyed him closely, then fell before him, clasped him about the ankles, and beating his feet with his head, cried: "I am your servant, and you are my savior."

Puzzled and annoyed, the traveler bade the man get up and say what he had to say. With great emotion, the native at length expressed himself: "You are Dr. Goucher of America, are you not? All that I am and have I owe to you. Hearing that you were traveling through on this train, I walked more than twenty miles just to see your train pass. Now God has let me look into your face."

By this time the American's traveling companion, a Methodist bishop, was awake, peering out of the window, and requesting explanations of the strange scene. Then the story came out, of how thousands of young Indians in the Northwest Provinces of India call themselves "Goucher Boys," and look upon a man in distant America, whom they have never seen, as their friend and emancipator.

In one word, because of a splendid vision and an heroic self-sacrifice, and the investment of $6,000 a year, thousands of boys, so far, have entered the realm of a higher intellectual experience and planning. This is true vision and service. Vision! that shall see today's need and opportunity, and realizing the debt of equipment, so invest life, as that it may please, brighten, encourage and uplift those who have not been so well circumstanced or so happily favored as we have been.

True and beautiful are the words upon the wall of the chapel in Leland Stanford Jr. University. They still stand though the structure is overturned. Who shall not say as a prophecy? "There is no narrowness so deadly as the narrowing of man's horizon of spiritual things; no worse evil could befall him in his course on earth than to lose sight of heaven, and it is not civilization that can prevent this; it is not civilization that can compensate for it. No widening of science, no possession of abstract truth can indemnify for an enfeebled hold on the highest and central truths of humanity."

PRINCIPAL CHARLES W. TAYLOR

Mr. C. W. Taylor, formerly superintendent of the McCook city schools, has been appointed principal of the Teachers' College High School of the University of Nebraska. In his new work he will also be professor of school administration in the Teachers' College of the University of Nebraska.

Professor Taylor graduated from the Red Oak, Iowa, high school and then entered the University of Nebraska. He received the degree of Bachelor of Arts in this institution in 1898. While in the University he was prominent in student affairs, being a member of the Inter-State Debating Team and corresponding secretary of the University Y. M. C. A.

Since leaving the University Mr. Taylor has served successfully as a superintendent of the city schools at Ohiowa for two years, at Geneva seven years, and McCook three years. He has had for six years experience as Junior Normal Principal at Geneva and McCook. He was president of the Central Nebraska Teachers' Association and of the Southwest Nebraska Teachers' Association. He has been vice-president of the Nebraska State Teachers' Association. He is a member of the National Education Association and also of the Nebraska School Masters' Club.

Mr. Taylor is recognized as one of the ablest school men in the state. He is a splendid organizer, a strong disciplinarian and an able instructor. He has been especially successful in declamatory work and in the high-school debating. Representatives of his high schools have carried off many honors in high-school contests. He also is enthusiastic for high-school athletics of the cleanest and highest type.

His administration of the Teachers College High School will place it in the front rank of the best high schools not only in Nebraska but in the country at large. Mr. Taylor will spend his summer vacations in study at Columbia University and other universities of national reputation, so as to keep himself abreast the times on all problems in the field of school administration. Already several of the leading city superintendents of the state have expressed their unqualified approval of the action taken by the Chancellor and the Board of Regents in making Professor Taylor principal of the Teachers College High School. They maintain that the University has thus honored itself as much as it has Mr. Taylor, and they are positive in their belief that this high school can and will render signal service to the state through the professional training that will be given those graduates of the University who are to be the future teachers of our best high schools.

The Nebraska State Teachers' Association meets at Omaha November 8, 9 and 10.

OUR COMMON SUMMER FLOWERS

By Charles E. Bessey.

The abundance and richness of our summer wild flowers has been the admiration of every lover of flowers ever since the prairies were first seen by white men, but this very richness and abundance of species has discouraged many an amateur botanist who has wished to make their closer acquaintance. "What shall I call this pretty flower?" is the question that has been asked by nearly every new-comer to the prairies, who wishes for a familiar name, but who has not the time to find it by the study of the rather difficult botanical manuals.

Now I can not hope to make an easy "short cut" to the names of all of our summer flowers, for there are too many of them, but it is possible to point out with sufficient exactness those kinds that are most striking and that are most noticeable, and this must suffice until the publication of the key to Nebraska plants, now nearly completed by Mr. Petersen.* Of course, even in such an article as this it is necessary for the seeker after a name to do some work for himself, since many quite different kinds of plants are distinguished by characters that must be carefully looked for, as the size of leaf, shape of leaf, arrangement of leaves on the stem, size of the flower, shape and some details of structure of the flower, and so on. Even in such a simple thing as learning the names of our wild flowers "there is no royal road to knowledge." All that I can do is to grade down the highway and roll off some of the stones, so that the road may be rather more easily traveled

Since almost everybody notices the colors of flowers, I shall here arrange the summer flowers of Nebraska primarily by color, and then make use of other characteristics in a secondary way. After the common name I give the scientific name of the genus.

A. Flowers brown.

In a dense cylindrical erect spike:
leaves long and narrow; grow in wet places. even in ponds .....Cat-tail Flags (Typha)

B. Flowers Orange (or yellow).

Large, very pretty:
leaves in whorls on the stems; on moist land in Eastern Nebraska; 3 to 5 inches long
Wild Lilies (Lilium)

C. Flowers Yellow.

I. Plants aquatic,
1. Flowers 2 inches across; leaves round, floating.....Yellow Water Lilies (Nymphaea)
2. Flowers 4 to 5 inches across; leaves round, a foot or more in diameter, lifted above the water.....Lotus (Nelumbo)

II. Plants terrestrial,
1. Plants prickly,
a. Fleshy, thick leafless plants,
Prickly Pear Cactus (Opuntia)
b. Not fleshy plants, with large leaves, common weeds .....Buffalo Bur (Solanum)
2. Plants not prickly,

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*Mr. Niels F. Petersen has nearly ready for publication a descriptive catalogue of the flowering plants of Nebraska based upon the State Herbarium in the University of Nebraska. When published it will enable any one to find the name of any of our native flowering plants

a. Flowers large, more than 1 inch across
i. Flowers funnel-shaped, 2 inches across: the plant trailing; grow in central and western Nebraska
Wild Pumpkins (Cucurbita)
ii. Flowers flat, spreading 2 to 3 inches across; grow in central and western Nebraska
Yellow Star Flowers (Mentzelia)
iii. Flowers 1 to 2 inches across, with a long tube and 4 petals; plants 2 to 4 feet high; common
Evening Primroses (Oenothera)
iv. "Flower" compound of many, minute flowers, the whole resembling a simple flower.
†Center of "flower" flat, with yellow rays.
*Leaves deeply lobed. The edges of the leaves are turned north and south, hence the name "Compass Plant"
Compass Plants (Silphium)
**Leaves opposite, and united into a cup. Insects are caught in great numbers in the cups, which usually contain water
Cup Plants (Silphium)
***Leaves scattered on the stem, not lobed. There are many species, the largest of which is the parent of the cultivated sunflowers.
Sunflowers (Helianthus)
††Center of "flower" a projecting cone
Coneflowers (Rudbeckia)
v. "Flower" of many, minute, irregularly clustered flowers, the whole wand-like .....Golden Rods (Solidago)
b. Flowers medium sized to small, less than 1 inch across.
i. Flowers open, saucer-shaped
†Plants large, coarse, woolly-hairy; a common weed in eastern Nebraska.
Mullein (Verbascum)
††Plants slender, with sentitive leaves.
Wild Senna (Cassia)
†††Plant low, spreading, with covered edible berries.
Ground Cherries (Physalis)
ii. Flowers like those of the pea.
Wild Peas (Thermopsis)
iii. Flowers like little curved trumpets; pods exploding when ripe.
Touch-me-nots (Impatiens)
iv. "Flower" compound. of many minute flowers, the whole resembling a simple flower
†Plants sticky, 1 to 2 feet high, containing gum .....Gumweeds (Grindelia)
††Plants not sticky.
Golden Asters (Chrysopsis)
Here may be sought the various species of .....Wild Parsley (Zizia) and the ubiquitous and weedy
Dandelions (Taraxacum)

D. Flowers White.

I. Plants aquatic, with round, floating leaves
White Water Lilies (Castalia)
II. Plants terrestrial,
1. Climbing plants
a. Leafy vines with large funnel-shaped flowers
White Morning Glories (Convolvulus)
b. Leafy vines with clustered small flowers.
Virgin's Bower (Clematis)
c. Leafless, yellow, parasitic vines. These are common in clover and alfalfa fields.
Dodders (Cuscuta)
2. Plants not climbing,
a. With milky juice
i. Leaves alternate and prickly; flowers large. (In central and western Nebraska) .....Wild Poppies (Argemone)
ii. Leaves alternate, not prickly; flowers small. Notice that it is the upper leaves that are white or white margined, giving a beautiful appearance to the top of the plant.
Snow-on-the-Mountain (Euphorbia)
iii. Leaves opposite, large, flowers small; very common weed in fields.
Big Milkweeds (Asclepias)
b. Juice not milky
i. Woody plants with flat flower clusters; the black berries are edible).
Elder Bush (Sambucus)
ii. Woody plants with round flower clusters; found near water in eastern Nebraska .....Button Bush (Cephalanthus)
iii. Herbaceous plants
*Flowers large, regular about 2 inches across; found in western Nebraska.
White Star Flowers (Mentzelia)
**Flowers large, irregular; common on high prairies ....Wild Indigo (Baptisia)
***Flowers small, greenish white, in loose spikes, leaves large.
Wild Orchids (Spiranthes)
****Flowers small, white, in solid spikes; leaves small
White Prairie Clover (Kuhnistera)
*****"Flower" compound, of many minute flowers, the whole resembling a simple flower
w. Leaves greatly divided; "flowers" small .....Milfoil (Achillea)
x. Leaves somewhat divided; "flowers" large. Has come into eastern Nebraska as a troublesome weed.
Ox-eye Daisy (Chrysanthemum)
y. Leaves undivided; plant tall; is often grown for ornament.
Boltonia (Boltonia)
z. Leaves very small; plant spreading.
White Asters (Aster)
Here one may look for the ghostly
Indian Pipe (Monotropa)
which is white throughout its stem, leaves and flowers.

E. Flowers Blue.

I. Flowers large, nearly or quite 2 inches caross.
Wild Iris (Iris)
II. Flowers smaller
1. Deep blue: plants smooth.
Blue Lobelias (Lobelia)
2. Light blue; plants more or less hairy.
Wild Sages (Salvia)
III. "Flowers" compound, of many minute flowers, the whole resembling a simple flower.
Blue Asters (Aster)

F. Flowers Red.

I. Flower open, saucer shaped; plants low, spreading; common in central and western Nebraska. .....Red Mallows (Malvastrum)

II. Flower closed, irregular; plant erect. This beautiful plant is rarely found only in southern Nebraska..Cardinal Flower (Lobelia)

G. Flowers Pink.

I. Flowers large, 1 to 2 inches across.
  1. Flowers saucer-shaped; plants succulent and leafless; in central and western Nebraska. Melon Cactuses (Cactus)
  2. Flowers funnel-shaped; plants twining. Morning Glories (Ipomoea)
  3. Flowers funnel-shaped; plants woody bushes; found only in eastern Nebraska near the water.....Rose Mallows (Hibiscus)

II. Flowers smaller.
  1. Flowers loosely irregular and spreading; plants tall.....Spiderworts (Tradescantia)
  2. "Flower" compound of 5 small pink flowers, the whole looking like a simple flower; plants almost leafless, with milky juice. A very pretty plant..Prairie Pinks (Lygodesmia)

H. Flowers Purple.

I. Flowers large, open, funnel shaped: plants bush-like; in central and western Nebraska .....Bush Morning Glories (Ipomoea)

II. Flowers medium sized
  1. Flowers saucer-shaped, about 1 inch across; worthy of cultivation. Poppy Mallows (Callirhoe)
  2. Flowers tubular, 1 to 2 inches long. Found rather sparingly, late in the season. Gentians (Gentiana)
  3. Flowers irregular, resembling pea-blossoms. In western Nebraska.....Lupines (Lupinus)

III. Flowers small
  1. Plants woody
    a. Plant silky hairy, low. Common on the prairies .....Shoe-String (Amorpha)
    b. Plant smooth, larger. Found along streams and ditches. False Indigo (Amorpha)
  2. Plants erect, herbaceous, with the small flowers in compact erect spikes. Purple Prairie Clovers (Kuhnistera)

IV. "Flowers" compound of many minute flowers, the whole looking like a simple flower
  1. "Flowers" with rays
    a. Center of "flower" a cone: plants coarse. Root contining a medicinal property. Purple Cone-flower (Brauneria)
    b. Center of flower flat: plants not coarse. Purple Asters (Aster)
  2. "Flowers" without rays
    a. Plants without prickles
      i. Flowers in spikes. Some species are cultivated for their beauty. Blazing Stars (Lacinaria)
      ii. Flowers in flat-topped clusters. Worthy of being cultivated. Ironweed (Vernonia)
    b. Plants very prickly throughout. We have many species, all of which are weedy. Thistles (Carduus)

UNIVERSITY EXTENSION

On the retirement of Director J. L. McBrien October 1, the direction of university extension in the University of Nebraska will be assumed by Inspector A. A. Reed as acting director. The principal change in the management will concern the division for instruction by lectures. Hereafter only members of the faculty will be used as extension lecturers and they will not be assigned through this department for entertainment courses of a lyceum nature. However, they will be available for public addresses, educational rallies, teachers' meetings, Y. M. C. A. meetings, meetings free and open, and other occasions where the purpose is primarily educational.

The division of correspondence study will be enlarged and enriched. The possibility and efficiency of teaching by correspondence study has been well demonstrated by practical experience in university extension work in the leading universities and colleges of both Europe and America. While such instruction lacks some of the advantages which residence study gives, it has compensating advantages of its own. In correspondence education the teaching is personal and individual. Each student studies and recites the whole lesson and as an individual and not as a member of a large class comes in contact with the instructor. Correspondence study employs the spare time of the student and gives him an interest outside of his daily work. It can be done at home and thereby brings into the home a new influence and charm. Correspondence work moreover throws the student upon his own resources and makes him self-reliant and self-determining.

Among the correspondence courses during the past three years that have been most popular and successful are those for certification and for university credit. The correspondence courses are offered in nearly all of the subjects required for any grade of teachers' certificates. Of those carried for university credit the following have been found to be the most workable and satisfactory thus far:

A. "Life and Times of Lincoln," as given by Professors Caldwell and Persinger. Over seventy-five different students have registered for this course.

B. "School Organization and Administration," as given by Dean Fordyce. Over fifty different persons have registered for this course, including some of the ablest city superintendents and high school instructors in the state.

C. "The Philosophy of Education," as given by Dr. Wolfe. Dr. Wolfe limits the number in this class each year to twenty-five. Already several have registered in this course for the ensuing year.

D. Courses 1 and 2 in English Language and Literature and "Comparative Literature and English," as given by Prof. Stuff.

E. "Physical Education," as given by Dr. Clapp and based upon one of the reading circle books for the past year. Over fifty different persons have registered in this course and thereby earned not only university credit, but reading circle credit as well.

F. "Industrial Geography," as given by Professors Condra and Bengtson. Many of the progressive grammar and high school teachers throughout the state have profited by this course.

G. "Nebraska History and Nebraska Problems in Legislation and Administration," as given by Prof. Sheldon, has been a very popular course in which will be enrolled a large number of correspondence students for the ensuing year.

Several new courses of correspondence study are now being planned for the coming year.

In addition to extension work for correspondence study much has been accomplished by itinerant professors and teachers. For example, Professor Grumann had a class of over one hundred students in an extension center at Omaha in a series of thirty lectures during the past year.. Miss Bashie Tully

had over two hundred extension students in elocution and dramatic art at Aurora, Alma, Bloomington, Central City, McCook and Shelton, the past year. There is a great demand for this line of instruction and in all probability from three to five itinerant instructors in this work will be needed for the next year.

The total number of different students in extension work in correspondence study and itinerant instruction during the past three years, exclusive of those in debating, has been over seven hundred. Five states are represented by extension students, the greatest number, of course, being in Nebraska. One correspondence student deserves special mention, namely, Mr. Wm. Wolvington of Manila, Philippine Islands. He is taking the course in "Life and Times of Lincoln" and "English Languages and Literature," courses 1 and 2.

One of the most helpful and popular lines of extension work has been that in debating, as given by Professor Fogg. Over one hundred high schools were furnished debating material last year through this department, thus instructing and helping nearly two thousand high school students in scientific debate. In all probability this work will increase during the next year. It is expected that debating material will be furnished to over one hundred and fifty high schools next year, as well as to many debating societies and hundreds of persons who wish to make a scientific study of leading public questions so as to have a fair and impartial knowledge of all phases of every question so studied.

DEPARTMENT OF AGRICULTURAL EXTENSION

Professor C. W. Pugsley has been placed in charge of a new department of the University to be known as the "Department of Agricultural Extension." This department will have charge of the Farmers' Institute work of the state and the farm management division of the College of Agriculture. The new plan permits of a much wider and more comprehensive field of educational usefulness than was possible under the former organization.

The selection of Professor Pugsley to direct this work is a guarantee to the success of the movement. Agricultural extension has great possibilities in increasing the usefulness of the University of Nebraska by connecting up the farming interests of the state with the various departments that are able to give expert advice in developing agriculture to its greatest possible limits.

Professor Pugsley has spent a dozen or more years in the state as student and instructor in the University. He is one of the best known and most widely appreciated lecturers in Farmers' Institute work. The earnest, plain presentation of his lectures at once impresses his audience with the realization that they are litsening to a man of the farm, a man who has not only a technical knowledge of the subject of his discourse, but has come into direct contact with farm life in Nebraska. Farmer born, farmer bred, farmer educated and trained, Mr. Pugsley brings to his new position unusual preparation for his field of work.

The prospects are favorable for a large attendance at the meeting of the State Teachers' Association in Omaha November 8, 9 and 10.

PROFESSOR JAMES D. HOFFMAN.

Professor James D. Hoffman of Purdue University is the new Professor of Mechanical Engineering, succeeding Dean Richards. Professor Hoffman was a member of the class of 1890 at Purdue, the class to which Dean Richards belonged. Immediately after graduation he was appointed an instructor. He has been connected with the same institution ever since, attaining the rank of Professor of Engineering Design. Heating and Ventilating Engineering is his specialty, and he is recognized as an authority on this subject. He is also the author of a text on the subject of Machine Design, which has been adopted for use in many of the engineering colleges in the country, including the University of Nebraska.

A year ago he was elected president of the American Society of Heating and Ventilating Engineers. He is a member of other engineering organizations, including the American Society of Mechanical Engineers; the American Society of Refrigerating Engineers, and the Society for the Promotion of Engineering Education.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION

For the second time the University Association has called to its general secretaryship an alumna of the University, Miss Fannie Drake. Under an efficient cabinet constructive plans for the year's work are being formulated. The object of the association is physical, social, intellectual and spiritual development of all young women. In a student center where the physical and intellectual needs are so amply provided for, the association in those departments must put its emphasis on increasing the efficiency of those agencies in the University. The association stands in physical life for hygienic living conditions, rational care of physical powers and honorable athletics. In intellectual life, the student association stands for honorable work, active participation in intellectual activities and the relation of knowledge to service. The life of the student can be little connected with affairs outside of her college and the interests connected with it. At the same time, education brings its own responsibilities and every college student should accept her opportunity for service to those less fortunate than herself. Through the social service committee, the Young Women's Christian Association is planning to become a real clearing house for social service.

By means of the social department the association is a unifying force in the social life of the University and a promoter of pure and rational living, based upon accepted social standards. The association rooms in the Temple are open to all University women whether members of the association or not. The opening reception for the year will be held on the evening of September 30 at the Governor's Mansion.

Bible and Mission Study classes will be planned for short courses during the semester. Constructive courses in Old and New Testament, social teachings, Bible, and modern missions will be offered. A general meeting for all University women will be held in the association rooms on Tuesday evenings, at five o'clock. It is planned that these meetings shall be both informational and inspirational. Prominent religious and social leaders will speak at these meetings. During the year, a student conference is to be held in which national leaders will participate.

The Young Women's Christian Association stands for all young women in our University and to be an effective force we must have the interest and support of each one. Through its varied activities it offers a field of service to all those who have a desire for it and cordially invites all young women students to make use of its opportunities and identify themselves with it.

THE PUBLIC LIBRARY COMMISSION AND UNIVERSITY EXTENSION

The Public Library Commission which was established ten years ago to promote the library interests of the state is developing particularly its work with individual students; endeavoring to bring, as far as possible, the resources of a good reference library to people out in the state who are far from library centers. The teacher, the club woman, the high school debator or the farmer finds in the library of the State Commission, material on the subject in which he is interested which he may borrow without any expense except the transportation charges.

When the State University began its correspondence courses it found the Library Commission of the greatest help, for the Commission was ready to supply the books necessary for students taking work in this manner. The Commission, at the request of the University Extension Department, bought many sets of the books needed for the course on the Life and Times of Abraham Lincoln. The Lincoln study group, which consists of Lincoln's Complete Works, and the biographies of Lincoln by Morse and by Tarbell, would have cost each student, at listed prices, $17.50, but through the Library Commission the student can borrow the books for use while taking the course, at no expense except carriage. The books have been in constant use and have been out to more than twenty-five places during the past two years. The Commission has just bought over 200 volumes recommended by Professor Caldwell for the correspondence courses to be offered in American history and expects that these books will be as good an investment as the Lincoln books have been.

THE UNIVERSITY Y. M. C. A.

After the resignation of Secretary DerKindern of the Y. M. C. A., last year, the work of the association was somewhat crippled for the rest of the year. This fall, however, Mr. Harkness, who was chosen to succeed Mr. DerKindern, has taken up the work and is pushing it in a way that points to a successful year for the association.

Mr. Harkness comes to Nebraska from the University of Illinois, where he was connected with the University Association. His experience in the work has been extensive and his preparation for it thorough. He has already won the warm respect of those who have made his acquaintance and will undoubtedly prove a valuable acquisition for Nebraska.

The work of the association will not differ materially from that of former years. Through the Social Department an attempt will be made to provide a healthful social atmosphere in the University. The religious activity of the association will find expression principally in the mid-week meetings and in systematic courses of Bible study. During the vacations of the year teams of men from the University will be sent out to some of the smaller communities of the state to work with the churches in bringing boys and young men into the church.

There will be one important difference in the work this year, however, that should be noted. All through the various departments of activity an attempt will be made to co-operate more closely with the churches of the city than has been the case in the past. This is especially true in regard to the courses in Bible study. The association will try first to enroll men in the regular Bible classes that are conducted by the churches of the city. Then for those men who do not enroll in the church classes the association will offer distinctive classes of its own. Through closer co-operation with the churches in this manner it is hoped to keep the men of the University in closer touch with the church life of the city.

On Sunday before the opening of the University these different policies and lines of work were thoroughly considered at a conference of the Y. M. C. A. workers in the Temple building. The previous evening the workers had been received at the home of Chancellor Avery and there were a large number present for the conference on the following day. Beside the consideration of specific departemntal activities, short talks were made by Chancellor Avery, Secretary Luke of the city association and Secretary Harkness. If the interest manifested at this conference is any criterion the work of the coming year will be well taken care of.

ACCREDITED SCHOOLS

The University of Nebraska, through its system of accreditment, provides a definite manner in which graduates of secondary schools in Nebraska may be admitted without examination. The plan is under the control of a committee of the University Senate, of an inspector, and an assistant inspector.

Beginning September 1, 1912, it will be necessary to present twenty-eight credits in order to secure conditional admission to the University of Nebraska. An accredited school must have in operation a course that permits the graduate for the current year to receive this number of credits. Schools with a three-year course of study may be admitted to the Junior Accredited list. Graduates from the Junior Accredited schools will receive conditional admission to the University of Nebraska upon the completion of four points in an accredited school. The Junior Accredited school must meet the conditions of an accredited school in so far as equipment and facility for instruction are concerned in the work of the three years offered, and the graduating class must present twenty-four acceptable credits.

The conditions on which a school is placed on the accredited list are as follows:

1. The program of studies should be well balanced in language, mathematics, science, rhetoric, literature, and history.

2. Sciences should be taught with adequate laboratory equipment, and with a course of study that provides for recitation periods and laboratory or field work. The proportion of time should be approximately three periods a week for recitation purposes and two double periods a week for laboratory and field work.

3. The library should be supplied with sufficient supplementary and reference books for the courses in literature, history and science.

4. The recitation periods should be standard (40 minutes), at least in the subjects required for admission to college.

5. The superintendent (or principal) should have time for supervising the work of the teachers.

6. The teaching force in number, scholarship and professional training should be up to the standard set by the experience of good schools. Instructors should have four years of training beyond a four-year high school course, including special preparation in the subjects in which they are to give instruction, or its equivalent. In determining the qualifications the ratio of two years of successful experience as a high school instructor may be accepted as equivalent to one year of higher training.

7. All schools are asked to make a detailed report in September, giving information necessary for bringing the condition of the schools before the committee. Schools that have been previously accredited and that have not made much change in the teaching force, may be placed upon the accredited list for the current year immediately. New applicants and schools that have made material changes in the teaching force will not be accredited until after a visit of inspection.

8. There must be at least two instructors in Junior Accredited schools giving their full time to secondary school work. It is recommended that at least one of the instructors meet fully the standard of qualifications applying to fully accredited schools.

All accredited and junior accredited schools are approved by the State Department of Public Instruction as first-class schools under the provisions of the law for free high school privilege.

The following is a list of public schools in the state accredited to the University of Nebraska for 1910-1911. This list does not include academies, seminaries and other private institutions:

Four-Year Schools.

Adams
Albion
Alliance
Alma
Arapahoe
Arlington
Ashland
Atkinson
Auburn
Aurora
Bancroft
Battle Creek
Beatrice
Beaver City
Beaver Crossing
Blair
Bloomfield
Bloomington
Blue Hill
Blue Springs
Brady
Bridgeport
Broken Bow
Burwell
Butte
Cambridge
Cedar Rapids
Central City
Chadron
Clarks
Clay Center
Columbus
Cozad
Crawford
Creighton
Crete
Culbertson
Davenport
David City
Diller
Edgar
Emerson
Exeter
Fairbury
Fairfield
Fairmont
Falls City
Franklin
Fremont
Friend
Fullerton
Geneva
Genoa
Gibbon
Gothenburg
Grand Island
Greeley
Gretna
Hartington
Harvard
Hastings
Havelock
Hebron
Holdrege
Hooper
Humboldt
Indianola
Kearney
Kimball County
Lawrence
Laurel
Lexington
Lincoln
Louisville
Loup City
Lyons
McCook
Madison
Merna
Minden
Nebraska City
Neligh
Nelson
Newman Grove
Norfolk
North Bend
North Platte
Oakdale
Oakland
Ohiowa
Omaha
O'Neill
Ord
Orleans
Osceola
Overton
Oxford
Papillion
Pawnee City
Pender
Pierce
Plainview
Plattsmouth
Ponca
Randolph
Ravenna
Red Cloud
St. Edward
St. Paul
Schuyler
Scottsbluff
Seward
Shelton
Sidney
South Omaha
Spencer
Springfield
Stanton
Sterling
Stromsburg
Superior
Sutton
Syracuse
Table Rock
Teachers College High High School, University of Nebraska
Tecumseh
Tekamah
Tilden
Trenton
Ulysses
University Place
Valentine
Valley
Wahoo
Wakefield
Wayne
Weeping Water
West Point
Wilber
Wisner
Wood River
Wymore
York

Three-Year Schools

Ainsworth
Beemer
Benkelman
Benson
Bertrand
Campbell
Cedar Bluffs
Chester
College View
Craig
Dawson
DeWitt
Dodge
Douglas
Dunbar
Elgin
Elmwood
Eustis
Ewing
Florence
Fort Calhoun
Giltner
Gordon
Grafton
Greenwood
Guide Rock
Hickman
Holbrook
Jackson
Kenesaw
Leigh
McCool Junction
Mead
Milford
North Loup
Ogallala
Pilger
Republican City
Riverton
Rulo
Rushville
Sargent
Scribner
Shelby
Silver Creek
Stella
Stratton
Talmage
Tobias
Utica
Waterloo
Wausa

Hardy	Western
Herman	Wilsonville

ENTRANCE REQUIREMENTS

(Effective September 1, 1911)

Subjects	Required Points (17)	Elective Points (13)
1. English*	4	1 or 2
2. History*		
American		1 or 2
European	2	1 or 2
3. Language (Ancient, Modern)†	6	2 or 8
4. Mathematics‡		
Algebra	3	
Geometry	2	1
Trigonometry		1
5. Science§		
Agriculture		1
Botany		1 or 2
Chemistry		1 or 2
Physical Geography		1
Physics		2
Zoology		1 or 2
6. Miscellaneous		
Other subjects taught in an approved manner in an accredited secondary school (one each)		6

*1. English:

2. History:

A few of the strongest accredited high schools may, by special action of the Committee on Accredited Schools, be granted two additional elective points, in each of these groups.

†3. Language:

Four of the six points required must be in Latin to enter the College of Arts and Sciences, the Teachers College, and the College of Medicine. For entrance to the other colleges of the University any foreign language may be offered to meet the requirement. The Committee on Accredited Schools may accept German or French to meet the required six points in foreign languages, in the case of specially approved accredited schools, for entrance to any College except that of Medicine.

‡4. Mathematics:

Three points in Geometry are required for entrance to the College of Engineering.

§5. Science. Physics:

Two points in Physics are required for entrance to the Colleges of Agriculture, Engineering and Medicine and these may be offered in the place of two points in language.

Chemistry:

Two points in Chemistry should be offered for entrance to the Colleges of Agriculture, Engineering and medicine.

TO AMBITIOUS YOUNG MEN

Principal Fred M. Hunter

As an ambitious, energetic, up-to-date young American, what question interests you most? I think I may safely guess that it is the question of your own success in life. You have thought over this question many times no doubt, and you are very sure, as is every one else, that the man who succeeds best in the future will be the man who is best prepared for what he is to do. If you are to be a farmer, you want to be an "A-one" farmer—one who gets from an acre of land twenty-five per cent or even fifty per cent more than even the best farmers of the past have been able to get. Probably you already know that in some parts of the world, scientific farming has made comparatively poor land yield many times as much as even our rich Nebraska land yields. The boys of Nebraska are going to do this in the future and I know you want to be one of those who get these best results.

You already know of our School of Agriculture here in Lincoln. You may secure here just the scientific farm training you need and want. By actual practice and experiment you can learn the various lines of farm work—raising field crops, horticulture, cattle raising, dairying, handling farm machinery, farm management, etc. While you are doing this you get a fairly good high school education, which will help in making your life broad and useful, and in preparing you to be a good citizen in the community in which you live. Am I not right in thinking that this is your ambition—to be a scientific farmer and good citizen? Let us help you to prepare for this in the School of Agriculture.

The course, as you know, extends over four years. If you have had high school work, you can complete this in much less time, perhaps in two years. The work in this course begins the 30th of October and lasts for six months. We have also a short course of some six weeks in length, given in January and February. In this course none but the farm subjects are given.

The expense of attendance is very small, and including board, room, incidentals, cost of books, etc., does not exceed from $160 to $175 each year. There is no tuition.

I trust you will decide to give yourself the intensely practical preparation which our school furnishes, and that you will enroll with us when school opens, October 30. If I can be of any service to you in any way, or if you desire further information, do not hesitate to write at any time.

NEBRASKA HIGH-SCHOOL DEBATING LEAGUE

The Nebraska High-School Debating League will begin its work this year much earlier than heretofore. Believing that preparation for the contests should start early in the fall, the superintendents and principals of the League schools have directed the president, Prof. M. M. Fogg, to appoint the eleven district directors in September.

While members will be admitted, under the League rules, until December 1, the district directors, who will at once begin to plan the first series of debates in each district, wish to know as early as possible what new schools are to join. The schools in each district will be paired to decide the district championship, and the school which wins the championship will be entitled to send a representative to the state championship debate at the University of Nebraska on High-School Fete Day in May.

The 1910-1911 membership of the League, which started in 1908 with thirty schools, was as follows:

1. Central District—Fairmont, Friend, Geneva, Osceola, Stromsburg, Sutton.

2. Eastern District—Blair, Fremont, South Omaha, Plattsmouth, Wahoo, Weeping Water.

3. East-Central District—Ashland, Crete, Dunbar, Havelock, Seward, Teachers College High School, University Place.

4. Northern District—Atkinson, O'Neill, Valentine.
5. North-Central District—Creighton, Madison, Neligh, Pierce, Randolph, Wayne.
6. Northwestern District—Alliance, Chadron, Gordon, Rushville, Sidney.
7. Southern District—Blue Hill, Diller, Edgar, Hastings, Hebron.
8. Southeastern District—Auburn, Beatrice, Falls City, Humboldt, Nebraska City, Stella, Tecumseh, Wymore.
9. Southwestern District—Beaver City, Culbertson, Bloomington, Franklin, Indianola, McCook, Minden, Trenton.
10. Western District—Kearney, North Platte.
11. West-Central District—Broken Bow, Merna, Ord.

The question which the League schools selected by vote last May for the fifth annual contests is the following live labor question: "Resolved, That the movement of organized labor for the closed shop should receive the support of public opinion." This is the proposition the University of Nebraska discussed in the Central Debating League last December with the University of Wisconsin at Lincoln and with the University of Illinois at Urbana.

In studying this closed-shop question pupils in the League schools will be able to get material through the Debating and Public Discussion of the University Extension Department of the University, through the University Library and the Debate Library, and through the State Library and the Legislative Reference Library. The University Extension will furnish such assistance in gathering information as it has furnished the last two years. It will prepare abstracts of books and articles, under the supervision of the president. These abstracts will be ready for distribution by late October.

The fourth annual "Bulletin" of the League—a twenty-four-page pamphlet uniform in style with the first, second, and third "Bulletins"—which was published in June, contains Bibliography I on the closed shop question—a list of fifty-four books and articles. Copies of the "Bulletin," which the League sells at the cost of printing (25 cents), may be ordered of the president or of the secretary-treasurer, Supt. C. A. Mohrman of Neligh. The "Bulletin" also contains the constitution of the League, the list of members for 1910-1911; reports of each of the fifty contests last year, and pictures of the ten representatives of district championship schools who competed in the state championship debate in which Victor Coulter of Wymore won first honors, Junius G. Oldham of Kearney, second, and William P. Ackerman of Havelock, third.

THE STATE TEACHERS' ASSOCIATION

The details of the program are about completed for the coming meeting of the State Teachers' Association at Omaha. In connection with the meeting there are to be twenty-five section meetings. The Industrial Exhibition will be in charge of Miss Anna Day, Assistant State Superintendent of Public Instruction. Among the speakers engaged for the meeting are A. E. Winship of Boston, editor of the New England Journal of Education; Henry G. Curtis, formerly secretary of the Playground Association; W. A. Evans, formerly health commissioner of Chicago; Supt. W. M. Davidson of Washington, late superintendent of city schools, Omaha.

THE SCHOOL OF AGRICULTURE

The School of Agriculture is designed to train men and women for usefulness on the farm. To men it gives a full training in subjects pertaining to agriculture as well as in those subjects in general education a knowledge of which every one should possess. The training offered to women is of a character to fit them for the duties and responsibilities of farm homes. Men who complete the course are admitted to the technical agricultural group in the University without examination; women have the same privilege if they wish to enter the group of home economics.

The School is open to men and women of sixteen years of age or over who have completed the common school course of study. All applicants for admission who present certificates from schools accredited to the School of Agriculture or from the superintendent of a county whose schools are accredited to the University are admitted without examination.

The School of Agriculture is in no sense a competitor of the high schools. Its purpose is rather to aid and supplement the high schools of the small towns in the great work they are doing in bringing the highest type of culture and industrial efficiency to our rural communities. Graduates from four-year high schools can easily complete the four-year course in two years. Those who enter from the eighth grade complete the course in four years.

The school year is divided into two semesters of twelve weeks each. The first semester opens October 30, 1911, and closes February 3, 1912. The second semester opens February 5, 1912, and closes April 26, 1912.

Board and room for men can be had in East Lincoln at reasonable rates; students will be assisted by responsible persons in finding suitable lodging places. Women are furnished board and lodging in Home Economics hall at $20 a month.

A NEW ORGANIZATION

Director J. L. McBrien, of the Department of University Extension, retires from that position October first to take charge of the National Lyceum Bureau, with headquarters in Lincoln. He will associate with him Supt. George Crocker, of the Teachers College High School, who has resigned for the purpose of taking up this line of work. Both men have a wide and favorable acquaintance in the state, and have enviable records in public school work. They have been drawn from the University by the greater attractiveness of the commercial field, both in remuneration and in possibilities for activity and influence.

WELLESLEY FELLOWSHIP

Grace E. Munson, '11, has just received notice from Prof. Katherine Lee Bates of Wellesley College that she is the first recipient of the fellowship granted by the Alumnae Association of Wellesley College. This fellowship carries with it $500 and is available for graduate study in candidacy for the M. A. degree at Wellesley. The holder of this fellowship must be a graduate of Wellesley or some other institution of satisfactory standing. Three years of successful teaching is a desired qualification of those considered for the appointment. In addition the candidate must give evidence of continued interest in some field of study in which she made a good record while in college.

ALUMNI TIDINGS

ANNUAL MEETING

The annual meeting of the Alumni Association of the University of Nebraska was held at the University Farm on Wednesday afternoon, June 14th. The meeting was called to order by President F. E. Bishop, '91. The Secretary's minutes, owing to the absence of E. H. Clark, were read by A. M. Voss, and approved. The Treasurer's report was referred to the executive committee for auditing:

Paul Clark presented the following resolutions, which were unanimously adopted:

"Whereas, The Alumni Association of the University of Nebraska, has so far been little more than a social club organized for a single annual function, and with no consistent purpose to accomplish anything else for itself or the University; and

"Whereas, We are not only alumni and former students, but first of all citizens of Nebraska, who, with all good citizens, desire the University to be of the greatest possible service to the State; and

"Whereas, We believe that the freest and fullest publicity and discussion of the University's needs and opportunities for service, so that all citizens may know what it has done, is now doing, and ought to be able to do in the future, will secure for it the hearty approval and support of the people of the State; and

"Whereas, We are persuaded that we know its needs and possible services better than others, and that the work of making the University known throughout the State, so that it may attain its highest efficiency, can best be done by the efforts of the alumni and former students organized and systematized through this Association; and

"Whereas, The Nebraska spirit of loyalty to the best interests of the State and the University, to say nothing of the feeling of personal gratitude, should impel us to act and to act now;

"Therefore, be it Resolved, That as a substittue for all of the pending amendments to the constitution and as repealing all sections and paragraphs relating to the officers of the Association, the following be adopted:

"The officers of the association shall consist of a president, vice-president, treasurer, and two directors from each congressional district of the state. These shall constitute the Board of Directors of the Association. The president, vice-president, and treasurer shall be elected annually by the Association and shall hold office for one year. One director from each congressional district shall be elected each year and shall hold office for two years. Except that in 1911, twelve directors shall be elected, six to hold office for one year and six for two years.

"The Board of Directors shall transact the business of the Association and shall elect and employ a secretary. The salary of the said secretary shall be fixed by the Board, not to exceed $1,800 per annum.

"The Board of Directors shall have power to adopt and formulate by-laws and to appoint an executive committee of its own members and to provide by-laws for the powers and duties of such executive committee. The Board shall have power, and it shall be its duty when sufficient funds are secured to publish, with the secretary as editor, a weekly or monthly paper or bulletin devoted to the interests of the University and its former students and graduates.

"It shall be the duty of the Board of Directors, with the assistance of the secretary, to organize, in each county in the state, where there are sufficient number of graduates and former students, and in such other places out of the state as may be deemed advisable, University of Nebraska clubs to which all graduates and former students shall be eligible to membership.

"For the purpose of meeting the expenses of the Association and the salary of the secretary, the Board of Directors shall grant sustaining memberships to alumni and former students on payment of $5.00 per annum.

"And the Board is further authorized to solicit and receive individual pledges and guarantees up to the sum of $100 annually, such guaranteed sums not to be paid except in such proportion as may be needed to fund the deficit for any year. Provided, however, that no officer or director, except the secretary, shall receive any compensation except actual expense while attending the meeting of the Board."

A canvass of those present was made, lead by Dr. Howard, Paul Clark, A. E. Sheldon and others, and a total of fifty-four alumni pledged to pay from $5.00 to $25.00 towards creating an annual fund of about $2,500 for maintaining a permanent organization with a paid secretary.

On motion, the following resulution was adopted:

Resolved, That the Board of Directors be, and they hereby are, directed and empowered to prepare a new constitution, to be approved, amended and adopted or rejected at the annual meeting in June, 1912.

On motion of Judge Frost the president was empowered to appoint a nominating committee of five, who reported as follows: President of the Association, Allen W. Field, '77, Lincoln; Vice-President, Ada I. Atkinson, '79, Omaha; Treasurer, N. Z. Snell, '82, Lincoln.

Directors from Congressional Districts:

First Congressional District—Paul Clark, '87, Lincoln, and A. A. Bishop, '98, Nebraska City.

Second Congressional District—Henry Leavitt, '96, Omaha, and Dean Ringer, '03, South Omaha.

Third Congressional District—W. N. Dowling (Assoc.), '00, Madison, and J. R. Foree, '86, Tekamah.

Fourth Congressional District—C. M. Skiles, '99, David City, and Harry Landis, '99, Seward.

Fifth Congressional District—E. B. Perry, '99, Cambridge, and Edith A. Lathrop, '03, Clay Center.

Sixth Congressional District—John N. Dryden, Kearney, and R. M. Thompson, '98, Ravenna.

Member of Athletic Board—W. O. Jones, to be continued.

The first named director in each district to serve for two years, the second named, for one year.

Committee—Lincoln Frost, A. A. Reed, Irving S. Cutter, L. E. Aylsworth, E. P. Brown.

Chancellor Avery gave his annual resume of the year.

On motion of Judge Frost, the secretary was instructed to cast a unanimous vote for the candidates reported by the nominating committee.

The president introduced Frances Wayland Russell, '90, who addressed the Association on the subject, "Vision, or How Extended is Your Horizon?"

ALUMNI ORGANIZATION

The Board of Directors of the University of Nebraska Alumni Association met at Lincoln on June 27, 1911, and elected George W. Kline, '00, a well-known Lincoln newspaper man, as permanent secretary of the Association. Mr. Kline accepted the tender and took up the work August 1st. He is giving his entire time to the development of the Association under the plans for reorganization adopted at the annual meeting.

The election of Mr. Kline was unanimous, the twelve directors present having none other in mind for the place. Only two members of the board were absent, Mrs. Atkinson of Omaha, vice-president, and Harry Landis of Seward.

Under the revised constitution, the Secretary of the Association is paid not to exceed $1,800 a year. The directors fixed the salary at this maximum and instructed the secretary to open an office in Lincoln immediately upon his assumption of the duties August 1st.

The directors named an execptive committee which is to have power to act in the interims between meetings of the board. The committee consists of President A. W. Field of Lincoln, Vice-President Ada Atkinson of Omaha, Treasurer N. Z. Snell of Lincoln, H. P. Leavitt of Omaha and E. B. Perry of Cambridge. This committee, with the addition of the secretary, is to be a special committee for forwarding the reorganization of the Association.

John Dryden of Kearney, senior director from the Sixth congressional district, resigned and was replaced by George Burgert of Kearney. Professor Louise Pound was elected to deliver the annual alumni address in June, 1912. December 28 and Alumni Day were set as the regular meeting dates of the board. Other meetings will be subject to the call of the president.

ALUMNI CLUBS

An event of interest to University of Nebraska Alumni and under-graduates was the recent gathering of Nebraska Alumni on the Pacific coast in connection with the recent N. E. A. meetings held in San Francisco.

A reunion banquet of University of Nebraska Alumni, under the auspices of the Nebraska Alumni Club of San Francisco, was held Monday evening, July 10th, at the Hotel St. Mark in Oakland, at which time thirty-six Nebraska Alumni gathered together in honor of Chancellor Avery and Mrs. Avery, visiting delegates to the N. E. A. convention and their families. It was the first affair of its kind held on the Pacific coast, and was the occasion of much pleasure to all those in attendance. Singing Nebraska songs, giving the yells, reviewing memories of old days at college, together with short toasts by Alumni of various classes formed the early part of the evening's program, which were followed by an informal talk by Chancellor Avery regarding "Present Conditions at the University and Its Future Possibilities," which was indeed a treat to all the other graduates who have not been in close touch with Nebraska affairs in the past few years. With few exceptions every class was represented from 1893 to 1911.

Among those present were: Clark E. Bell and wife; Paul T. Bell and wife; J. N. Shreve and wife; Dan Gutleben and wife; Chancellor Avery and wife; Prof. G. W. Luckey, wife and daughter; Asa G. Casebeer and wife; Prof. D. N. Lehmer and wife; Guy T. Slaughter and wife; Prof. W. T. Horne and wife; Mabel H. Stephen, Marie K. Carriker, J. F. Ingalls, C. B. Burnham, H. E. Groff, Ben Cherrington, F. Adams, Chas. F. Woods, L. L. Zook, Josephine Frazier, W. C. Mills, jr., C. H. Chalmers, C. F. Gutleben, Prof. E. C. Bishop, Margaret Burke.

On September 15th, Chancellor Samuel Avery and Head Dean C. E. Bessey spoke at the dedication of the new quarters of the Omaha University Club. Over 250 former University and College students attended the smoker, which signalized the opening of the Club. This club includes former students of all colleges and universities and already numbers 250 members. The rooms formerly used by the Railroad Club in the Barker block on Fifteenth near Farnam street have been fitted out for temporary quarters. A regular lunch service has been instituted and it is intended that the Club shall become a central meeting place for college men in Omaha.

One of the features of the occasion was the request that all who attend bring at least one book for the College Library. The Club members and guests responded liberally, and scores of books, on fiction, biography, science and travel, were contributed. College publications are to be secured regularly for the reading table.

The evening program was very informal, Chancellor Avery and Dean Bessey being practically the only speakers. Chancellor Avery made a witty address, which brought uproarious gaiety. Dean Bessey spoke on the more serious possibilities of the Club and of the value of University training in general.

MARRIAGES

Ben M. Cherrington, '11, a prominent University man and student coach of the 1910 track team, has accepted the general secretaryship of the University of California Y. M. C. A.

E. A. Boostrom, '02, and Lillie I. Behle, '11, were married at the home of the bride, Osceola, on June 28, 1911. Mr. Boostrom is superintendent of schools at Stromsburg, where they have made their home.

Mildred F. Clark, '04, was married on April 12, 1911, to Albert Fuller. Mr. and Mrs. Fuller took a wedding trip to the Bermuda Islands and are now enjoying themselves in the mountains in New York. They will make their home at Galesburg, Ill.

Nina Adelaide Tewksbury, '10, of Lincoln, was married in Salt Lake City, September 11, 1911, to H. E. Wolters, '10. Mr. Wolters is a civil engineer in the employ of the Consolidated Copper company of Nevada. Mr. and Mrs. Wolters will be at home after October 1 at Ruth, Nev.

The wedding of Evangeline Casey, '07, and Hal Edward Cornell was solemnized at the home of the bride's mother at Pawnee City, June 29, 1911. Mrs. Cornell has taught the past three years in the high school at Ashland. Mr. and Mrs. Cornell have made their home at Dietrich, Idaho.

The marriage of Bertha Mabel Howard, '06, to John H. Agee, '10, took place on June 21, 1911, at the home of the bride's parents, 1425 C street, Lincoln. Mr. and Mrs. Agee took a short wedding trip and then made their home in Lincoln, where Mr. Agee is senior member of the law firm of Agee, Murphey & Sawyer.

Caroline Marie Ehlers, '08, and Mr. Braxton Asher Klutts were married on August 22, 1911, at the Meth-

odist Episcopal church, Whittier, Cal. Mrs. Klutts has been teaching in the schools at Whittier and spent a year previous to that in Europe. Mr. and Mrs. Klutts will be at home at Hickory, North Carolina, after Sept. 25, 1911.

The marriage of Dr. George H. Walker, '08, to Miss Gladys Turner took place August 31, 1911, at the home of the bride's mother, Columbus, Nebr. Dr. Walker is adjunct professor of anatomy, University of Nebraska, and a practicing physician. Mr. and Mrs. Walker will be at home to friends after October 15 at the Orlo, Lincoln.

Frank J. Pipal, '07, and Belle E. Kadavy were married at South Omaha on June 22, 1911. Mr. and Mrs. Pipal have made their home at 109 So. 6th street, LaFayette, Ind., where Mr. Pipal holds the position of assistant botanist in the agricultural experiment station, Purdue University. Mr. Pipal is meeting with the best of success in his new work.

The marriage of Irma May Franklin, '10, to Harry W. Ewing of Lincoln took place June 20, 1911, at the home of the bride, Aurora, Nebr. Mr. and Mrs. Ewing left on the evening train for Lincoln, where the groom had a home in readiness. Mrs. Ewing has been a teacher in the Lincoln schools during the past two years. Mr. Ewing was recently made football coach at Morningside College, Sioux City, Iowa.

The marriage of Evelyn Sue Axtell, '08, to Charles J. Barrows took place on August 30, 1911, at the home of the bride's parents, 1825 Van Dorn street, Lincoln. After a short trip Mr. and Mrs. Barrows returned to Lincoln before going to their home on a farm near Hastings. Mr. Barrows received a degree from Hastings College. Following her graduation Mrs. Barrows taught German and English in the high school at Fairmont.

Nelle McIntosh, '11, and Royce C. Cass were married on August 30, 1911, at the home of the bride's parents, 2543 Vine street, Lincoln. Mrs. Cass had just returned from a summer's trip in Europe, having spent most of her time in Germany, where she studied the German language. Mr. and Mrs. Cass are at home at Winlock, Wash., where Mr. Cass is engaged in business and where Mrs. Cass is teaching in the high school.

Martin Costelloe, '06, and Matilda Weckbach were married May 31, 1911, at St. Theresa's pro-cathedral, Lincoln. A wedding breakfast for the members of the two families was served at the bride's home, 1709 L street. Mr. and Mrs. Costelloe went at once to Colorado, stopping in Denver for a few days before going to their home at San Acacio. Mr. Costelloe is supervisor of a large tract of irrigated land in the San Louis valley.

Mary Leona Baker, '10, and Everett S. Frost were married on the morning of August 30th, 1911, at the home of the bride's parents, Lincoln, Nebraska. A wedding breakfast was served after the ceremony, after which Mr. and Mrs. Frost left for Opportunity, Nebraska, where they will be at home to friends after October 1st. Mr. Frost was at one time a student of the University and is now engaged in business in Opportunity and is the postmaster there.

A ceremony of particular interest to the alumni was the wedding at Beatrice on September 2, 1911, of Miss Imogene Brewster, '07, to Edward Markwood Rutledge, '09, at the bride's home. Mrs. Rutledge has been a teacher in the Beatrice high school. Mr. Rutledge is registrar of the State University, having been advanced from the assistant registrarship. He is a member of Alpha Theta Chi and Phi Alpha Tau fraternities. Mr. and Mrs. Rutledge will be at home after September 15 at 2344 Dudley street.

C. C. Berkey, '10, and Miss Carrine Porter were united in marriage at the home of the bride's parents, Wilber Nebr., June 28, by the bride's father, Elder C. H. Porter. Mr. Berkey and Miss Porter were students at the Peru State Normal school, and graduated together in the class of 1908. Mr. Berkey has for the last year served as superintendent of schools at Edgar, Nebr., and is continuing at the same place for the present school year. Miss Porter has taught in the Wilber schools for three consecutive years.

Carrie Kate Schultz, '08, and Dr. W. G. Hiltner, '04, were married on June 28, 1911, at the home of the bride's parents, Tobias, Nebr. After visiting at Chicago, New York and Boston, Mr. and Mrs. Hiltner sailed July 25 on the Franconia from Boston on their way to Shanghai, China. Dr. Hiltner was recently appointed a member of the faculty of the Harvard medical school located at Shanghai and will be placed in charge of surgery. Mrs. Hiltner was secretary of the University of Nebraska Y. W. C. A. last year and before that was engaged in the same work at Binghampton, N. Y. They will go via Liverpool, Eng., and expect to travel for some time before going to their final destination.

PERSONAL NOTES

Professor H. W. Caldwell, '80, accompanied by his wife and daughters, left in the latter part of June for a year's vacation in Europe. It is Professor Caldwell's first leave of absence for a score of years. Professor Caldwell has been continuously connected with the University since he entered it as a freshman in 1876. He graduated in 1880 and became an instructor in history. He has been head of the department of American history for many years. Year in and year out, Professor Caldwell has regularly met his classes. Almost every summer he has taught at the summer session. This year he determined to take a long rest and the regents readily granted the year's leave of absence.

Dr. P. A. Rydberg, '91, who is Curator of the New York Botanical Gardens, visited the University of Nebraska the early part of September. Dr. Rydberg spent the summer in southeastern Utah, whehe there is a very interesting botanical region.

Dr. H. A. Senter, '93, head of the chemistry department of the Omaha High School, is also custodian of the book department.

R. C. Bentley, '94, is now associate professor of education at Stanford University, California. Mr. Bentley was for seven years Dean of Clark College, Worcester, Mass.

W. H. Pillsbury, '96, is farming near Chico, Cal.

The title page, preface, table of contents, and sample pages of a new text-book for mining students, miners, and prospectors, entitled "Practical Mineralogy Simplified," have just been received. This book has been written by Jesse P. Rowe, Ph. D. '97, professor of geology and mineralogy, University of Montana, and is published by John Wiley & Sons, N. Y.

Charles H. True, '98, has gone from Chicago, Ill., to Phoenixville, Pa., where he is continuing in his former occupation.

John W. Graham, '99, has moved his field of activity in the law profession from Fremont, Nebr., to Twin Falls, Idaho.

Mrs. P. A. Morse, '99, died after a lingering illness, May 22, 1911, at her home in St. Louis. Mrs. Morse,

nee Dahl, was morn at Blue Earth, Minn., February 9, 1879. In 1888 her parents moved to Lincoln, Nebr., where she attended public school, graduating in 1899 from the University of Nebraska, and in 1902 received a Master's degree with German as a major. For two years she taught German at the University, and on June 24, 1902, was married to Perse A. Morse and made here home in Chicago. In 1904 her home became St. Louis, where she lived until her death. She is survived by her husband and a daughter, Ester, aged six. Her parents also survive her and are living at Minneapolis, Minn. The Alumni Club of St. Louis at the time of her death sent a cluster of carnations as a floral offering.

Mr. and Mrs. H. R. Tucker, '99, 110 Bompart Ave., Webster Groves, Mo., report the birth of a son, Henry James, on August 28th, 1911.

R. D. Andreson, '00, is back again in Lincoln as manager of the Underwood Typewriter Co.

Winifred Hyde, '00, returned from Germany this summer, after an absence of nearly six years. Miss Hyde will remain in Liucoln for the coming year, as she has accepted a position in the department of philosophy at the University of Nebraska.

Harriet Wilson, '00, is an assistant librarian, University of Nebraska, Lincoln.

Superintendent N. M. Graham, '01, and wife of South Omaha spent their vacation at Sand Island in Lake Superior.

A. H. Staley, '01, superintendent of schools at Superior, took a three- weeks' trip with his family to Idaho Springs, Colo.

John S. Swanson, '01, U. S. postoffice inspector, is now located at St. Louis.

Dr. H. W. Benson, '03, formerly at Glenwood, Ia., is now located at Oakland, Nebr.

Arundel M. Hull, '03, died at Wisner, July 5, 1911, where he had been in the electrical engineering business. Mr. Hull served in the Spanish-American war with the First Nebraska regiment and was a member of the lodge of Elks. A wife, who was formerly Miss Adelaide Deily, and two small sons are the close surviving relatives.

Frederic M. Lipp, '03, formerly banker at Billings, Mont., and later merchant at Idaho Falls, Idaho, and at Logan, Utah, is now banker at Hardin, Mont.

Louise Miller, '03, is a graduate student of the University of Chicago, Chicago, Ill.

C. T. Borg, '04, who is practicing law at Pateros, Wash., was visiting friends in Lincoln in the early part of August.

Mrs. Jeanette Burlingame Macomber, '04, is Normal Training teacher in the high school at Sutton.

Thomas V. Goodrich, '04, teacher of history in the Lincoln High School, has secured an increase in salary for the coming year.

Mortimer J. Brown, '05, who has been professor of chemistry at the Chihli Provincial Industrial College, Tientsin, No. China, has just completed a year of work at Cornell University for his doctorate. Address, 921 East State St., Ithaca, N. Y.

Olive Griffith, '05, returned to Lincoln May 31, 1911, from Damah, India, where she had been for six years in missionary work. Altho Miss Griffith has been working under the direction of the Cincinnati Missionary Society, yet she has had all her expenses paid by the members of the First Christian church of Lincoln. Most of her time has been spent as a teacher at Damah, which is near the center of India. Her parents live in Pawnee City.

Margaret Martin, '05, is teaching in the high school at O'Neill.

Helen D. Redington, '05, who was principal of schools last year at Hickman, is teaching mathematics in the high school at Missouri Valley, Ia.

E. B. Adams, '06, is proprietor of the "Adams House," Ritzville, Wash.

Ethel M. Pressley, now Mrs. S. L. Mackin, is located at Cottage Grove, Oregon, where her husband is in the mercantile business.

Lillian Benuett, '06, is instructor in English in the high school at Pawnee City.

Mrs. E. K. Bowman, '06, formerly Marcia R. Scofield, now resides at Hardin, Mont.

Raymond E. Dale, '06, who is farming near Loup City, reports that an Alumni Club is flourishing at Loup City, with the following officers: President, R. P. Starr; Vice-President, Emma Outhouse; Secretary, Flora Ohlsen.

Clyde L. Davis, '06, is an electrical engineer for the Tonopah Mining Co., Tonopah, Nevada.

Grace Eccles, '06, is located at Roswell, N. Mex.

Kate Foster, '06, is teaching in the high school at Malolos, Bulacan, Philippine Islands.

Albert A. Fricke, '06, is a practicing physician at 404 No. 24th St., Omaha.

Flora Grace Ernst, '06, is teaching botany at Brownell Hall, Omaha.

Vivian Lee Hackman, '06, is now located at Irvington.

William H. Henney, '06, has located at Phoenix, Ariz., in the practice of medicine.

Aldis E. Hibner, '06, is a power engineer with the Livingston Niagara Power Co., Avon, N. Y.

Alvah C. Hough, '06, attorney at law, is located at Lenapah, Okla.

Elizabeth M. King, '06, is employed as an indexer in the legal department of the American Telephone & Telegraph Co., 46 Clifton Place, Brooklyn, N. Y.

Marion M. Melick, '06, is doing stenographic work in the civil and electrical engineering offices, University of Nebraska. Her home is at Bethany.

Oscar M. Meyer, '06, is manager of the Nebraska Credit Co., a mercantile agency, and is located at 422 Little bldg., Lincoln.

John Clyde Moore, '06, is a physician, 429 Brandeis blk., Omaha.

Mrs. W. H. Newcomb (Florence Hirst), '06, recently removed to Evanston, Ill., Box 237. She writes that she has been teaching for the past five years in Ogden, Utah, where she was head of the English department of the high school.

No change could personally affect more students in the State University than the succession of E. M. Rutledge, '09, to the position of university registrar, a place held for nine years by Philip J. Harrison, '04. The registrar comes into more or less personal contact with every student in the University at some time or another during his course and probably no one official is more widely known. Mr. Harrison retires to enter business in Lincoln. He leaves an impression with undergraduates and alumni as a quiet, efficient official, whose sauvity and willingness to accommodate have always been marked. Mr. Rutledge becomes registrar after four years as assistant in the office. He has many of the characteristics which made Mr. Harrison's administration a success and is well versed in the conduct of an office which has come to be considered one of the models of its kind in the country.

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OF ILLINOIS.

ALUMNI EDITION

The University Journal

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OPENING ADDRESS

CHANCELLOR SAMUEL AVERY

Every institution of higher education must recognize two obligations. The first must be a devotion to knowledge without regard to local limitations. It must be limited by neither time nor space. It must recognize the universal brotherhood of scholars, and regard the mass of knowledge which has accumulated through the ages as that common property of the race. In this sense, then, there are no state or national universities, no denominational institution; but the activities of all are limited only by the sum total of human knowledge and their ability to communicate with intelligent beings.

We have often heard the expression, "A city has a soul." We have long recognized that as a people becomes uniform, it develops its genius—its dominant traits. While America is a wonderfully homogeneous country, and while our own characteristics do not differ vastly from those of surrounding states, yet I believe that in Nebraska we are coming more and more to have a state consciousness. The university has been and will continue to be an important factor in developing this state consciousness. Hence the part the university plays in its formation is a matter of vital importance to both present and future generations. I have, therefore, thought of trying to outline some possibilities for developing ideals in the university, and in the state at large.

Nebraska, compared with most of its neighbors, is a conservative state. We have had radicalism, to be sure, but to a less degree than most of the surrounding states. Political innovations have commonly come later, and often receded earlier, than in many of the commonwealths about us. In legislation we have been wiser—or slower, according to one's way of looking at it—than many of our neighbors. We have not fought, and bled, and died, so frequently; but we have nevertheless made very substantial progress with very few backsets. This attitude, or mental habit, has been reflected in the development of the university. For example, we are still among the most conservative of state institutions in the number of fixed subjects required for admission—but we are gradually changing. Our temperament keeps us moving steadily along the path of progress without those sudden advances and retreats that have characterized sister states and sister institutions.

This sobriety of feeling and expression shows itself in the student body. This university has never had to face acute student situations such as have disgraced other institutions. Conditions here have often been the reverse of those which Dr. Ross, formerly of this institution, found in China on his recent tour of investigation. Individually, the Chinese students were exceedingly docile, but he found them difficult to deal with when acting en masse. The Nebraska student may be a bumptious individual, but he is reluctant to sink his individual bumptiousness in a concerted movement. All of our students are leaders, and so there are none to be led.

Picking up a newspaper on the morning before I began preparing this address, I noticed an attack on the moral conditions prevailing in American universities. Mr. Crane of Chicago, though he doubtless knows more about the manufacture of plumbing supplies than he does about higher education, nevertheless has written some things that demand more than a passing glance. It is true that student life is everywhere characterized by some undesirable feature, and always will be, since education cannot well be deferred until the student has become as staid as his parents. In Russian universities we see exhibitions of the highest form of idealism, mingled with out-and-out materialism, and pervaded by a spirit of anarchy. In the German institutions respect for law and order reign supreme, but it is liberty which too often degenerates into the grossest forms of living. The great institutions of the east, which Mr. Crane so fiercely attacked, are far superior in point of morals to many institutions on the other side of the Atlantic. Unfortunately, Mr. Crane failed to give his opinion of conditions in state universities, but I believe that even a hostile critic would be obliged to concede that Nebraska, and others which I might mention, would hold a relatively high place in the moral scale.

I attribute this condition to the following causes: the influence of our most prominent professors; the character of the homes from which our students come; the efforts of our local clergy to make conditions wholesome, and the general civic conditions of the state at large; and finally the fact that, if I am correctly informed, we have at Nebraska the largest body of women students in the country, if we except those registered in the University of Chicago. The effect of the presence of this body of high-minded young women cannot be overestimated.

Mr. Crane's words are not the voice of one crying in the wilderness. The abuse of intoxicants at social functions has been denounced by no less a person than the Kaiser himself and in the native country of Gambrinus at that; and a no less powerful voice is that of David Starr Jordan, among the vine clad hills of California. Last summer I had the pleasure of an

interview with President Jordan, and as nearly as I can recall his remarks he said: "Although California is considered a pretty wet state, I feel that we have won our fight here on the liquor question. During the course of the last three years we have established pretty thoroughly the sentiment that Stanford men do not dissipate." Shall we in Nebraska be content with any lower ideal?

Much as we may deplore intemperance in the sense in which it is generally used, yet mental intemperance is an even greater evil. The nation, it seems to me, is just recovering from a great mental debauch. Extravagance in speech and in writing has been the rule. Reckless denunciation of patriotic and conscientious men, yellowness in magazines and other publications, have disgraced our era. Fortunately we are now entering a calmer and safer period. During this time the typical Nebraskan has pursued his way unaffected by this period of mouthy madness. To be sure, we too have had our troubles; but in the main our great newspapers have been calm; our ablest leaders have been sane, even when most "progressive," and have refrained from the arts of the demagogue.

The disinclination of the state to follow too many untried paths of political theorism is reflected in the attitude of the university towards educational theorism. The university has not endeavored to cater to every possible desire of the people. A few worthy things have not been inaugurated, the institution preferring to sustain adequately these things already in existence rather than to create a multitude of struggling innovations. The University of Nebraska is trying to serve the people by making every dollar paid by the taxpayer count to the utmost. It is not frittering away its resources in all sorts of enterprises outside of the campus,—enterprises which make good reading in the magazines, or which may help to advertise the institution, but which have little place or part in an institution devoted to higher education. In the same way our students are taught that sound work on sound subjects is the preparation that they need for life's work. As a university we are trying to be moderate in all things, realizing that mental intemperance leads to untruthfulness, since truth consists in making true impressions. Demagogery and playing to the galleries have no place in an institutions whose ideal is that of truth.

Nebraska is a state that some of our eastern friends find difficult to understand. How can this state be among the first to average production of the great live stock and cereal crops of the country, when within the memory of those still comparatively young some sections of it have suffered from famine? They read first that the hot south blasts have withered the corn, and later that through a timely change of the weather this great cereal "has come back again" and is going to produce a bumper crop. It does sometimes seem that nature tries to see how close she can bring us to ruin and yet spare us. Thirty years ago these whims of nature produced tragedies, but as time has passed they have become almost comedies, or at most disagreeable incidents connected with the progress of the state. There have been occasional crop failures ever since the state was settled, but we have learned that our agricultural success depends not on what a single year, but upon what a series of years will bring forth. By the vicissitudes of climate and by the presence of a few lean years among the fat ones the Nebraskan has been trained into a cheerful confidence that things will turn out well in the end. This disregard of present troubles and serene confidence in the future makes the typical Nebraskan good natured, calm, cheerful, optimistic. Contact with the elements has taught him not to regard the hot wind, the blizzard, or the hailstorm as all-important things in his life and well-being. Our students take somewhat the same view of examinations, failures, and other college calamities. This mental attitude makes the teaching of Nebraska students a delight to the professor, and association with students the only relationship which always cheers the heart no matter how leaden the skies of the future may seem.

An eastern friend of mine remarked to me that he found a sentiment among our Nebraska students which struck him as peculiar—almost as absurd. "I helped a boy," said he, "get a job looking after a furnace, and later found that his father was possessed of considerable wealth, abundantly able to pay his expenses. I asked the boy how it happened, and he said that he did not like to admit to his father that he could not hustle his own living." Such situations are not known to older civilizations, yet I am glad that such a spirit of independence exists among our young people. I hope the time will never come when only those labor who are compelled to labor to support themselves. I hope that there will always be a considerable number who are willing to labor for the sake of the independence that attaches to that mode of life, and whose presence in the student body will be a continual reproof to those who feel that labor is degrading, and that only the scatterers of unearned money are entitled to special consideration. In this connection I would not say a word in criticism of those students who are entirely supported by their parents, provided that they put in their time at hard work on their studies. The self-supporting student, however, is the salvation of our western institutions both educationally and morally; and those unspeakable conditions which Mr. Crane describes as existing, in some institutions, overdrawn though I think they are, are very largely due to the presence of the idle rich, whose influence everywhere is destructive to scholarship, to manhood, and to womanhood.

No state and institution has ever developed to full stature and strength without the pains of growth. The settling of the prairies and the founding of permanent institutions called forth at once the best and worst in the pioneers. The absence of artificiality in our early environment was conducive to a spirit of simple honesty, while the uniformed condition of affairs offered temptations and opportunities for trickery. The result was a natural impulse toward honesty, developed, however, without those conventional safeguards which make for honesty in older civilizations. The natural honesty of our students is shown by the fact that nearly all of them will tell you frankly the actual condition of student affairs. By assuring students that information given will not be used directly against them, I have little difficulty in finding out the ins and outs of matters that have taken place among the student body. As a rule our students do not do things which at the moment do not strike them as ethical. I make this statement advisedly. Few Nebraska students have ever cheated without at least temporarily justifying their conduct—"it was a poky old required subject," or

"the professor knew that nobody could pass the examination without cheating," and so forth.

The charge is sometimes made that the University of Nebraska is undemocratic—that the fraternities and sororities represent au aristocracy of thought and feeling, that the literary societies and the associations are bourgeois, as it were; and that the students not belonging to organizations are the peasantry. This classification contains only slight elements of truth. Yet it does contain slight elements. You could hardly expect a young man whose father belongs to several clubs, or a young woman whose mother may be equally addicted to the club habit, to resist the enticements of fraternity or sorority life. It is the most natural sort of thing for young people to wish to associate themselves together. There need be nothing undemocratic in these organizations. Nebraska is a democratic state. Few students in the world are more democratic in heart and feeling. Our young people who come from farms where the hired man and the hired girl eat at the family table are not likely to be made snobs by such fraternities or sororities. Reasonable social distinctions are not incompatible with democracy. Yet I do feel that these organizations should cultivate a breadth of social feeling, and widen their members' social sympathies rather than narrow them. The fraternities and sororities intensify student life. They are now on trial. They will be permanently acceptable to our people if they can completely adjust themselves to conditions in a democratic state. The fact that I happen to belong to a little club of twelve gentlemen does not mean that I make my social life revolve around that club and similar clubs. The whole distinction between Greek and barbarian should for the most part be wiped out of the student's consciousness. Let these organizations remain and increase in number, but let them stand for scholarship and for the expression of a wholesome social life, not for the monopolizing of student society. Any unwritten law that fraternity and sorority young people should band together while the "barbs" should associate only with each other is grotesque in a democratic institution and cannot exist very many years among a student body with as wholesome ideals of life as most of our young people possess. I would paraphrase the Scriptures to say, "Neither fraternity nor non-fraternity life availeth anything, but a clean, wholesome, rightminded student body."

Many of us who still feel comparatively young recall a time when the Nebraska pioneers were traveling with ox teams. We have witnessed the transition from this to our present automobile era. Progress from primitive, pioneer conditions to a state of comparative luxury has been exceedingly rapid. It is often observed that when any group of successful Nebraskans—judges, professional men, teachers, bankers, merchants, farmers—get to indulging in reminiscences of their boyhood days, you will find that nine out of every ten had the same experience on the farm, attending similar country school houses; had painful recollections of cowhide boots, and very joyous recollections of bucking bronchos. Our students are largely children of the successful pioneers. Though brought up in different surroundings than their fathers and mothers, they still retain the family traditions of hard work, of sacrifice, and of strenuous devotion to duty. Comparatively few of our students have been injured by luxury. In demanding hard study, the university authorities have the moral support of the parents, and fairly good encouragement from the students themselves. Our well-to-do students have not been brought up in the atmosphere of luxury that prevails farther east. It is, therefore, it seems to me, exceedingly desirable that we should preserve a readiness and a capacity for hard work. This is a splendid inheritance from Nebraska's pioneer days—a native plant of our plains which we must domesticate and maintain in a hardy condition under cultivation. It must not be permitted to lose its hardness. Hard work, study, self-sacrifice, high scholarship, must ever be maintained in the University of Nebraska. I have again and again been surprised at the number of western state university men who hold prominent positions in eastern institutions. Nebraska men have been successful at Harvard, Yale, Columbia, Cornell, Michigan and elsewhere, and their number is altogether out of proportion to the number of students those schools receive from the state. If through the increase of wealth or the drift of sentiment we should ever lose that respect for hard work and hard study which now differentiates us to a considerable extent from some of the eastern institutions, we would part with one of our greatest assets.

The state university, representing as they do all the people, must of necessity endeavor to conduct themselves on all important questions in a manner acceptable to all the people. Denominational colleges are expected to encourage their students to become adherents to the denominations they serve; and because the state university serves no special denomination and has no theological basis, it is sometimes assumed that a religious life is not possible or desirable in such an institution. On the contrary, the authorities unofficially encourage the student to exemplify to the best of his ability the faith in which he has been brought up. Most of us, through the churches with which we have been affiliated from infancy, have inherited a splendid legacy of truth and devotion, and a change would mean loss. It is difficult to swing from one of the divisions of a given faith to another, even though there be no great difference between the two, without parting with a portion of this heritage. It seems to me, therefore, that we do well to encourage a very close co-operation between the students of any faith and those who represent the same faith in our city churches; and we believe that interaction between an institution devoted primarily to knowledge, and an organization in which faith predominates, will be mutually helpful to both. The Nebraska student's ideal, therefore, should be greater efficiency in the work of the church in which he was born. Through his influence the church will in the future come to be more in harmony with modern thought and progress.

Those who criticise our athletics may be divided into several classes. A small group is probably actuated by the motives which Macauley describes to certain English puritans in opposition to bear baiting —not because it hurt the bears, but because it was fun for the spectators. Some of the opposition to football is actuated less by fear of injury to the players than by a dislike of the great joy the game gives the student body. Another and larger class has confused athletics with exercise. As now conducted, our athletics are not supposed to touch any great proportion of the student body in a physical

way. Physical culture and sport are two separate and distinct things. The question of maintaining intercollegiate athletics is largely a question of whether it is better to have clean, officially regulated excitement for the student body, or to permit young people to secure such excitement as they may without official sanction. Shall we try to dam up the torrents of student enthusiasm, or endeavor to conduct them along safe channels? It seems to me that the latter is the safer course. Furthermore, there is nothing like our great athletic contests to produce a spirit of unity and sense of solidarity in the institution, from the gravest dean to the newest freshman. Athletics carried on without excesses, but with clean, wholesome enthusiasm, should be a Nebraska ideal.

It is obviously impossible in a short address to do more than give a broad outline of some of the ideals that should govern Nebraskans, both as students and as citizens. Some of those I have tried to describe are as yet only in the germ, but I think fertile soil for the growth of all of them is to be found in our commonwealth and our university. We can no more manufacture them outright than we can manufacture traditions—they must come through growth and development. But first conditions and attitudes must disappear, wrong sentiments, wrong impulses, and wrong conceptions must be rooted out. The destruction of these things that should have no place in our own or any other university can be accomplished largely by the students themselves. They can do more than regents or faculty. I have somewhere read an Indian fable relating how a white-bearded old man told a group of English and American missionaries that a great poisonous tree was growing in India, and that Englishmen had come with their axes and tried to cut it down, but their efforts only made it flourish the more. Then they had called in Americans, who tried to cut it down with their American axes, but still it flourished and grew larger. Finally the native people came and made axe handles of the branches of the tree itself, and when its own boughs were turned against it the tree was cut down in a single day. The tree in the fable represents ignorance and superstition in India. I would apply it to our university. Let the students themselves attack each blighting growth and it will fall before we are aware.

EDUCATIONAL THEORY AND PRACTICE.

By Doctor Charles Fordyce, Dean of the Teachers College, University of Nebraska.

How to Plan a Lesson That It May Be taught Effectively.

No single defect in teaching is so common as that found in a lack of definite aim and the means essential to realizing this aim. Few lectures or sermons are convincing because of this prevailing fault. A class period is set apart for the treatment of a limited portion of subject matter under study; to be of value to the class there must be revealed in this division of subject matter the central or fundamental thoughts together with the relation of these to what has preceded and what is to follow. Rarely should there be more than one fundamental thought or aim in the lesson; this should be definitely conceived and stated. The remainder of the lesson should be so closely organized about this center as to make it stand out clearly. This organization of subject matter around the central aim requires time and patient toil; it usually calls for elimination of the unessentials and for supplement; for it must be remembered that the material in most books is text matter and should be treated somewhat as a minister deals with a text in Bible study.

The lesson plan should show clearly **what** the teacher means to accomplish and **how** she proposes to accomplish it. The points to be fixed in the minds of the class and the educational procedure by which these are fixed should be differentiated from each other and each so arranged as to present clearly and concisely the facts to be learned. The writer has followed in the training school of the Teachers College, the appended form with the most satisfactory results. This is a modification of the form used in the best training schools in this country and in Germany. Few teachers are attracted at the outset by this type of lesson-plan, but the author has yet to learn of any teacher who has given it a fair trial who does not praise its merits. The lesson-plan should provide: 1., For such fundamental questions as provoke a thoughtful consideration of the main facts enumerated in the column marked "Subject Matter"; 2, For illustrative teaching material; 3, For references to the text or other sources of information on the topic considered; 4, For application of the facts learned to the practical life of the pupil; 5, For reviews, summaries and drills; 6, For a clear and definite assignment of the next lesson.

Many object to the preparation of questions in advance of the class hour on the grounds that the teacher cannot preconceive the needs of the class period. In answer to this question, the writer would reply that the cardinal virtue of teaching lies in the art of questioning; no one can witness the class room procedure of a skillful teacher without being impressed with the fact that the most potent stimulus for calling forth the hearty and vigorous intellectual response from the class is a good question. Bacon was right in saying: **"Prudens quaestio dimidium scientiae."** Good questions are an organic part of the issues of a well planned lesson; that the class may be held rigidly to the main topics involved, pivotal questions are essential; such questions are rarely, even by the most experienced teachers, conceived on the spur of the moment; the attempt to provide them during class procedure is responsible for such weak questions as the direct, leading, elliptical and alternative heard among the majority of teachers. The questions advocated for the lesson planned are such as determine the order of procedure; such may be easily preconceived. Around these will cluster minor questions involved in the main ones, many of which will be, as they should be, contributed by the class; of course these latter cannot be foreknown; if fundamental, thought provoking, clear, concise, concrete questions are given in rational sequence, a high type of intellectual response is secured. The following is offered as an illustrative lesson-plan.

I. Topic—First Declension in Latin.

II. Aim—To aid the pupil in acquiring a clear conception of declension.

Subject Matter	Method of Procedure
1. Base—The element of the word giving the general meaning and remaining unchanged	1. In the word **domina** note the element unchanged through all the case forms. This

in declension (Consult D'Ooge's Latin for Beginners, p. 25).

2. Case ending—The element that shows the relation of the meaning of the word to some other word, (Consult text p. 25.)

(Note—for convenience in keeping subject matter in proper relation to and in sequence with the method of procedure, it is well to give attention to the matter of alignment. It may be noted in this plan that topic 1 is placed immediately to the left of and in alignment with the treatment shown in the right hand column: topics 2 and 3 are similarly arranged. This will leave as a rule blank spaces in the left hand column, one of such spaces is here filled with this note. These blank spaces have, however, the virtue of making the topics under consideration stand out more clearly.)

3. Declension is the change in case endings by which the relation of the meaning of the word to other words is expressed.
4. Assignment—Hand in a written translation of Ex. 34 in the text.

is called the base. Write the base of **domina, silva, aqua, causa,** and **luna.**

2. Write the various cases of **domina** and **silva,** separating the base from the case ending and underlining the case ending. The nominative and accustive endings express the same relations as conveyed by what cases in English? Write the case endings of the nominative and accusative, singular and plural. The genitive expresses the same relation as is conveyed by what English case? Write the case endings for the genitive singular and plural. The dative expresses the same relation as is conveyed by what English prepositions? Note that it corresponds to the indirect object in English. Write the case endings for the dative singular and plural. The ablative expresses the same relation as is conveyed by what English prepositions? Write the case endings of the ablative singular and plural.
3. Decline in both singular and plural, giving the English meaning, the nouns **domina, silva, aqua, causa,** and **luna.**

GRADUATE WORK IN THE COLLEGE OF AGRICULTURE OF THE UNIVERSITY OF NEBRASKA

E. Mead Wilcox, Professor of Agricultural Botany.

The standards maintained by the College of Agriculture in the University of Nebraska have always been high—a happy condition of affairs made possible by a fortunate combination of several factors. First of all, the state is to be congratulated on the fact that its chancellors, deans and professors have endowed its University with the true spirit of scholarship and research. Work done under these conditions and in this spirit may not bring such immediate returns in the form of popular approval and applause, but is certain to result in more permanent good to all concerned, than the more showy work so often demanded of our state universities.

In the second place, the people of the state have seen fit to encourage and uphold the high ideals of their University and in proportion to their ability to contribute, they have enabled many of these ideals to become real. No greater testimony than this to the real sound intelligence of a people could be given.

Graduate work of a high order has long been done in the University, while the recent organization of a graduate college promises to provide the stimulus and wise guidance for the development of investigation in all lines of study. And while it is true that graduate work of a high order is not possible where low standards of under graduate work prevail, yet we must acknowledge that graduate work and graduate students are the leaven which may be counted upon to leaven the whole work of the University.

The Nebraska Experiment Station, an integral part of the College of Agriculture, has of necessity devoted its energies to investigation. Tho of course, the limitations placed upon the expenditure of the Hatch and Adams funds, which have been the main supports of the station, largely and wisely prevent the use of these funds for what might well be called the more popular lines of work often bordering closely upon the purely instructional functions of the college. Where states fail to so far supplement these national funds as to permit of various popular lines of work, it may well happen that the station remains comparatively unknown among the people for whom it is after all doing the most valuable kind of work.

Naturally it is not surprising that these station investigators, who at the same time directly or indirectly control the character of the various college departments, should encourage graduate work upon the part of their students. No subject can expect long to command the respect of students which is not being presented from the investigator's point of view. At the present time, the great need of "Agriculture" is not so much further attempts to organize its materials in better "pedagogic form" as to increase these materials by patient and critical investigation of the fundamental problems.

We present here a synopsis of the opportunities for graduate work, offered by the various departments represented in the College of Agriculture. The departments are arranged in alphabetical order.

Agricultural Botany

Professor Wilcox.

This department is especially prepared to offer graduate work in phytopathology and phytophysiology. To successfully undertake research work in this subject, students should have a broad training in general botany, chemistry and zoology and should be able to read French and German.

For Undergraduates and Graduates

1. Elementary Plant Pathology. Three hours. Students are advised to take General Botany 15, 16 and 19, 20 before or with this course.

2. Elementary Plant Pathology—1 continued. Second semester.

3. General Plant Pathology.—Prerequisite: Agricultural Botany 1, 2. An advanced course of lectures designed to furnish such a broad working basis as to enable one to engage in original research in plant pathology. Two hours.

4. General Plant Pathology—3 continued. Second semester.

5. Forest Plant Pathology. Three hours.

For Graduates

6. Problems in Plant Pathology—Prerequisites: Agricultural Botany 1, 2. Two to five hours.
7. Problems in Plant Pathology—6 continued. Second semester.
8. Problems in Plant Physiology. Two to five hours.
9. Problems in Plant Physiology—8 continued. Second semester.

Agricultural Chemistry

Head Professor Alway.

The work offered is either research or direct preparation for research. The nature of the problem undertaken depends on the student's pevious training. Students are urged to acquire thorough training in inorganic, organic, analytical and physical chemistry before undertaking research work in this department.

In addition to these courses, graduate students may select problems in the chemistry of plants. The nature of the problem assigned to any particular student depends both upon his previous training and upon the lines of investigation in progress at the Experiment Station.

Primarily for Graduates

2. Analysis of Agricultural Products—Prerequisites. courses 1, 2, 3, 7, and 8 in Chemistry, or their equivalent. Two hours.
4. Analysis of Soils and Fertilizers—Prerequisite: courses 1, 2, 3, 7, and 8 in Chemistry, or their equivalent. Two hours.
5. Research in the Chemistry and Physics of Soils—Prerequisite for undergraduates: courses 7, 8, 9, and 10 in Agronomy. Two to five hours.
6. Research in the Chemistry and Physics of Soils—5 continued. Second semester.
8. Chemical and Physical Properties of Soils. This course is open to only those who have already taken courses 5 or 6 or who are taking course 6. Three hours.

Agricultural Engineering

Professor Chase.
Adjunct Professor Shedd.

Practically all research work by students in Agricultural Engineering is done while undergraduates, which is in accordance with the general practice that students in engineering very seldom do graduate work. The department is at present prepared to offer advanced work to undergraduates or graduates as the courses listed below:

3. Rural Architecture. Three hours.
4. Farm Drainage and Rural Highways. Three hours.
7. Research Work in Rural Architecture, Farm Drainage and Rural Highways. From two to five hours.
8. Research Work in Farm Machinery, Farm Motors and Farm Equipment. From two to five hours.
11. Advanced Farm Machinery. Two hours.
12. Advanced Farm Motors. Two hours.

Agronomy

Professor Montgomery.

The courses offered in this department are intended primarily for those desiring to take up advanced work in Agronomy. Extensive lines of investigation are under way and opportunity is offered to work up some special line. All general courses in Farm Management are prerequisite. Students taking this work are expected to spend the summer season on the experimental farm, for which a moderate compensation is allowed. Only a limited number of students can be accommodated.

1. Investigation. Two to five hours.
2. Investigation—continuation of 1. Second semester.
3. Methods of Investigation. Two to five hours.
4. Methods of Investigation—continuation of 3. Second semester.

Agronomy and Farm Management

Professor Pugsley, Adjunct Professor Barker,
Adjunct Professor Hopt.

4. Farm Management Seminar — Prerequisite: Course 3, one to five hours.
5. Advanced Field Crops. Prerequisite: Courses 1, 2a, ab, 7 and 9. One to five hours.
6. Advanced Field Crops—5 continued. Second semester.
7. Soils. Two hours.
8. Soils—7 continued. Second semester.
9. Soil Physics. One to four hours.
10. Soil Physics—9 continued. Second semester.
11. Soil Management—Prerequisites: Courses 1, 2a, 7 and 9. Two hours.
11a. Soil Management Laboratory. Two hours.
14. Advanced Soils—13 continued. Second semester.

Entomology

Head Professor Bruner, Assistant Professor Swenk.

For Graduates and Undergraduates.

5. Systematic Entomology. Three or more hours.
6. Systematic Entomology—5 continued. Three or more hours.
7. Advanced Economic Entomology. Four or more hours.
8. Advanced Economic Entomology—7 continued. Four or more hours.
11. Forestry Entomology. Two hours.
12. History of Economic Entomology. One or two hours.
13. Medical Entomology. One or more hours.
14. Seminary—The seminary work of the department is carried on by the Nebraska Entomological Society, an association of students specializing in entomology and taking advanced or graduate courses, meeting one evening each week for the presentation of papers and the discussion of current progress in entomological science. Time spent in the preparation of papers and attending meetings may be applied as laboratory work.

Primarily for Graduates.

These courses may be registered for repeatedly until the completion of the problem.

15. Research in Systematic Entomology.
16. Research in Systematic Entomology—15 continued.
17. Research in Economic Entomology.
18. Research in Economic Entomology—17 continued.

General Botany

Students in the College of Agriculture may find in the Department of General Botany a wide range of graduate work in botany. This is in addition to the special facilities for graduate work in plant physiology and pathology by the Department of Agricultural Botany.

Home Economics

Professor Bouton, Associate Professor Folger, Miss Davis and Miss Nesbitt.

This department is not as yet organized with special reference to graduate work. The graduate students have from time to time taken advanced work without reference to any advanced degree. The following courses are available for undergraduates and gradautes.

For Undergraduates and Graduates.

5. Advanced Cookery. Two hours.
6. Advanced Cookery—7 continued. Second semester.
5a. Dietetics. One hour.
6a. Dietetics—5a continued.
7. Industrial Art.
8. Industrial Art—7 continued. Second semester.
9. Household Administration. Two or three hours.
10. Household Administration—9 continued.
13. Teachers' Courses—Required of candidates for the University Teachers' Certificate in Home Economics. Two hours.
14. Teachers' Course—13 continued. Second semester.

Horticulture

Professor Emerson, Adjunct Professor Westgate.

A limited number of advanced students who desire to fit themselves as teachers or investigators will be employed at a moderate compensation to assist in the laboratory of the School of Agriculture during the winter or to help in the experimental work of the Experiment Station during the summer. The investigations now being conducted by the department on the subject of heredity afford especially favorable opportunities to graduate students.

8. Genetics. Two or three hours.
9. Horticultural Problems. Two to five hours.
10. Horticultural Problems—continuation of 1.
12. Landscape Design. Three to five hours.

Degrees Conferred During the Past Two Years

Agricultural Botany.

1. Coons, G. H.—B. Sc. 1908 University of Illinois; A. M. 1911 University of Nebraska.
Thesis: "Investigations of Gmynosporangium juniperi-Virginianae."

Agricultural Chemistry.

2. Files, E. K.—B. Sc. 1908, Nebraska Wesleyan University; A. M. 1910 University of Nebraska.
Thesis: "Methods for the determination of humus."
3. Little, E. M.—B. Sc. 1907 University of Nebraska; A. M. 1910 University of Nebraska.
Thesis: "Milking Machines."

Agronomy and Farm Management.

4. Filley, H. C.—A. B. 1903 University of Nebraska; A. M. 1911 University of Nebraska.
Thesis: "High School agriculture in relation to the farmer."
5. Gardner, W. H.—A. B. 1910 Nebraska Wesleyan University; A. M. 1911 University of Nebraska.
Thesis: "Agriculture in Rural Schools."

General Botany.

6. Barre, H. M.—B. Sc. 1907 University of Nebraska; A. M. 1910 University of Nebraska.
Thesis: "Presence and significance of the Hyphae and Spores of Glomerella Gossypii (Southworth) Edgerton in cotton seed."
7. Boostrom, E. A.—A. M. 1910 University of Nebraska.
Thesis: "Study of the functions of the trachcary tubes of plants."
8. Ingram, D. E.—A. B. 1907 Washington State College; A. M. 1910 University of Nebraska.
Thesis. "The Progressive Development of the buds of certain woody plants."
9. Pipal, F. J.—A. B. 1908 University of Nebraska; A. M. 1911 University of Nebraska.
Thesis: "The Annual Increment in a tree."
10. Weaver, J. E.—B. Sc. 1909 University of Nebraska; A. M. 1911 University of Nebraska.
Thesis: "A study of the development of the flowers of the peach."
11. Williams, C. V.—A. M. 1910 University of Nebraska.
Thesis: "Relation of soil structure' to transpiration."

Horticulture.

12. Westgate, V. V.—B. Sc. 1908 University of Nebraska; A. M. 1910 University of Nebraska.
Thesis: "Color Inheritance in Petunia."

WINTER COURSE

The winter course in Agriculture will open January 2 and close February 16. This course is planned for any who are unable to attend the full term of the School of Agriculture, and is open to all persons over 16 years of age. All farm subjects will receive consideration. For information address Principal Fred M. Hunter.

LABORATORY MATERIAL INSTRUCTION IN FIELD CORPS.

One of the difficulties met by schools in introducing courses in Agriculture has been the securing of proper and sufficient laboratory material. It is becoming more and more clearly recognized that with a reasonable knowledge on the part of the teacher and with a reliable source of laboratory material the study of Field Corps and especially knowledge of field-crop plants themselves is both interesting and teachable. These subjects lend themselves so perfectly to quiet, orderly, individual laboratory work.

In order to meet its own needs the Department of Agronomy in the University of Nebraska has made collections of the various materials found of special use in their own laboratories. These have been put up into forms so as to make them available for use in other schools. They are put up in two forms, head samples and threshed samples. The head samples come in bundles ready for mounting or mounted behind glass in frame of blackened oak. The threshed samples come in four ounce screw capped bottles and in sixteen ounce mason jars. Some of the smaller seeds and miscellaneous material are put up in two ounce and four ounce bottles.

For normal schools and larger high schools where grain study is taken up rather fully the pint size for cereals or the four ounce small-seed materials will probably prove best, while for smaller schools the four ounce for cereals and the two ounce size for the smaller-seed materials will answer nicely. For rural and all smaller schools as well as for references the mounted specimens are sufficient. Besides the purchased material every teacher should collect some local samples.

The head samples consist of fourteen types of wheat, six types of oats, nine types of barley, twelve types of grass, seven types of millet, thirteen types

of sorghum. There are twenty-four corn types. There are representative lots of special seeds of wheat, oats, barley, sorghum, millet, cultivated grasses, cultivated legumes and miscellaneous and less common seeds.

For prices or further information address the Department of Agronomy, University of Nebraska.

EXTENSION COURSE

The Extension Department of the University will have ready by January 1, a correspondence course in Agronomy. This course will be particularly adapted to high school teachers of agriculture, but may be taken by others who have the books required and who either have access to a laboratory or are skillful in improvising laboratory equipment. Its successful completion will give three or four hours of University credit.

Soils will be studied in the first part of the course. Lyon & Fippin's text book on soils will be followed and readings assigned from other authors. The laboratory exercises will include field work in the student's own locality, studying the home types of soils, a microscopic examination of different soil classes, a brief survey of the most important soil-forming rocks and minerals, and experiments to determine the capilarity, porosity, apparent density, and organic matter condition of soils, the effects of manures and methods of checking evaporation.

Hunt's "The Cereals in America" will be followed as a guide during the latter part of the semester. Readings will be assigned from the latest available bulletins dealing with cultural methods, cost of production, and kindred subjects. Exercises in judging and grading grain will be given, the student learning how to use the score card. Samples of grain which the student cannot obtain in his own community will be sent him from the University.

Weekly reports will be required of all who register for the course and probably more individual help will be given each student than if he were in regular attendance at the University.

NEBRASKA HIGH SCHOOL DEBATING LEAGUE.

The work of the fifth year of the Nebraska High-School Debating League has already begun, under the supervision of the new district directors, with a considerably increased membership. New members will be admitted until December 7.

The following new members had been enrolled on October 20:

Exeter.....Supt. H. Jennings
Fullerton.....Supt. C. W. Watson
Stratton.....Principal G. A. Marshall
Lincoln.....Principal V. G. Mays
Western.....Supt. J. D. McMillen
York.....Supt. W. W. Stoner

The following district directors for 1911-1912 have been appointed by the president of the League, Prof. M. M. Fogg:

Central District.....Supt. E. Clippinger, Sutton
Eastern District...Supt. I. N. Clark, Weeping Water
East-Central District..Supt. J. A. Woodard, Havelock
Northern District.....Supt. Celia Gorby, O'Neill
North-Central District.....
.....Supt. L. M. Oberkatter, Madison
Northwestern District.....
.....Principal J. A. Hanna, Sidney
Southern District.....Supt. J. A. Woodard, Diller
Southeastern District.....
.....Supt. G. E. Martin, Nebraska City
Southwestern District...Supt. C. T. White, Trenton
Western District.....Supt. H. E. Bradford, Kearney
West-Central District.....Supt. C. F. Jones, Ord

The question for the League debates this year is that of the "closed-open" shop. "Resolved, That the demands of organized labor for the closed shop should receive the support of public opinion."

The abstracts of articles and books on this subject furnished by the Debating and Public Discussion Division of the University Extension Department are being prepared under the direction of the president. They will be ready for distribution by November 25.

The department will furnish this material at the cost of the reading and the mimeographing. Each school will receive three copies for two dollars and seventy-five cents.

UNIVERSITY EXTENSION

William Wolvington of the class of 1911, who is in government service in Carigara, Leyte, P. I., is completing the requirements for his degree by university extension work. He has sent in his final papers on the "Life and Times of Lincoln." He has written in high appreciation of the course, concluding, "The man Lincoln means more to me now than ever before."

The department of composition and rhetoric has arranged to give two correspondence courses through the department of university extension. The first two lessons of the course have already been prepared and are now in the hands of the class. Additional lessons will appear once a week throughout the remainder of the year. This course is in charge of Miss Estelle Morrison, who has been an assistant in the department for several years. Miss Morrison is attending classes that are taking the regular rhetoric course, as presented for the academic year, and is making such modifications in this work as to adapt it to the needs of students not in residence.

The department of mathematics is giving a correspondence course in trigonometry. This will be the equivalent of Mathematics I, as carried in residence work, and will give five hours of college credit. Carl Rohwer is in charge of the work.

SCHOOL NOTES

School patrons of Kenesaw are doing their best to raise their school to the four-year accredited list. A Normal Training course will be added next year, by which time it is hoped that a new building will be ready for use.

The Oakland schools are crowded to overflowing. More room is badly needed. The board is thinking of building an annex to the old building.

Wood River was compelled to refuse non-resident pupils admission to the high school because of a lack of room. Some of the grade rooms are also crowded.

The Overton school is this year doing its usual good work. Fifteen of Overton's young people are now in various schools at Lincoln, most of them at the University of Nebraska.

A fine new school building is in process of construction at Elmwood. It is hoped that the second semester will find the school in session in its new home.

At Shelton a new $40,000 school building is going up rapidly. This building under the watchful eyes

of Superintendent Monroe will have all the modern things in the way of light, ventilation, and arrangement of rooms. A separate room will be fitted up for normal training and also one for domestic science. A fine gymnasium is provided for. The Shelton schools may well be taken as a model for organization.

Bancroft is making its usual good showing. A strong class of twelve will be graduated next spring.

The Bartley schools under Principal Duncan are making an earnest effort to meet requirements for accreditment to the State University.

The high school at Lexington has begun work in the new building, altho it is still in an unfinished condition. When completed, it will be a model of design and construction. Among the changes in the plan of work for the current year is the introduction of a commercial course. Their requirements for graduation are the same as in other courses, except that the students may substitute commercial subjects in part.

The high school at Gothenburg is comfortably located in a commodious new building. The seventh and eighth grades are included as a part of the high school organization. The departmental plan is followed in the work of the fourth, fifth, and sixth grades, making use of the old high school plant for this purpose. Of the eighty students that have graduated from the Gothenburg high school, forty-four have entered other higher institutions for advanced study

RECOGNITION SERVICE.

On the evening of October first a service of more than ordinary interest was held at the First Presbyterian church at Lincoln in recognition of the wider relationship that the work of the Presbyterian University pastor is to have to the Presbyterian synod of Nebraska. The work was instituted and carried for two years by the First Presbyterian church of Lincoln. It has now been made state-wide in its responsibility and control.

The meeting was presided over by Rev. L. D. Young of Beatrice, president of the synodical association in charge of the work. The principal address was made by Hon. William Jennings Bryan, who was introduced by Chancellor Avery, and who said in part:

"I understand that we have some 600 young men and young women who come to this University from Presbyterian homes, and it is not too much to say that the Presbyterian church of this city ought to exert an influence over those who come from other local churches; an influence which will determine to a large extent whether they will go back with their enthusiasm for church work chilled, or whether they go back stronger in their faith. I hope that every denomination will follow the example that the Presbyterian church is setting in this regard. I hope that all denominations will recognize the importance of having their University pastors, in order that every possible influence that can be, may be thrown around these students.

"The State University, a fixed part of the educational system and growing everywhere in usefulness, is at a disadvantage compared with the denominational colleges in two respects: In the first place, the very fact that the institution is large makes it impossible for the chancellor and the professors to enter as intimately into the lives of students as the president and professors do in the smaller colleges. This has been referred to by our chancellor, and it does not need to be emphasized. The chancellor with his great body of students is unable, because of their numbers, to know any considerable portion of the students personally, is unable to follow their movements, to know what they are doing outside of school hours, or to give to them suggestions or advice as to personal conduct. In the second place, an institution supported by public taxation cannot apply to its instructors the religious tests applied to denominational schools. In thees two respects, I think the University in proportion as it becomes great is unable to do the work that a smaller college can do. Yet as the spiritual life of the university student is just as important as the spiritual life in other colleges, there is, therefore, the necessity for the present movement.

"The University pastor is the result of modern conditions. He has become a necessity, and I am glad that the necessity has been so recognized in this community, and that we are making such excellent progress in meeting this condition."

Rev. W. W. Lawrence presented Dr. Leland, who said in part:

"A keen observer of university life has declared that there are two great deficiencies in the religious environment of the university student. 'There has been available to him no such mature, experienced and expert counsel on religion as is always open to him on intellectual subjects from his professors. There have been few ties or none to hold him during his university course in line with the organized church. In a word, the university student has been practically unpastored and unchurched.'

"It is to fill up this lack in university life that we enter this inviting field. The student enters the university at an age when the sanctions of religion often begin to lose their power, when the new life of intellectual freedom allures him with many temptations, when the nascent powers of manhood produce in body and brain and heart an almost riotous springtime of youth and hope. This purpose must always be kept in mind in the work of the university pastor, to hold the student loyal to the church and church life, and to keep the things which have been so important a part of his home and social life natural and familiar to him during these formative years. I am convinced that this influence in the life of every student is necessary that when he returns to the big world afterwards, the church mission enterprises and church worship may not be strange to him, that there may be no break between the organized religion of his student life and the organized religion that calls for his allegiance in later years. In my experience of two years, I find myself confronted with two problems: First—The problem of the personal religious growth of the students who come to us in a continuous line year after year, and secondly, the problem of the moral conditions and standards of the university itself. The first is a problem of the individual; the second, of the institution. The university pastor must seek to make real in the individual experience of each student, the supremacy of Jesus and the deep meaning of Christ's call to every human life. He must help the Christian associations and do all in his power to promote those activities undertaken in unofficial co-operation with the chancellor and other university officials interested in order to develop in the university itself Christian

ideals and the Christian spirit. This, you see, is a vital work; this personal touch, these interviews with students on religious subjects, securing the co-operation of student leadership in church work, presenting the claims of the ministry and the foreign field to such as show natural fitness and ability. I am absolutely convinced that being a vital work it is necessary to both students and institution. It ought to be gratifying to us all to know that in this great student body there is a quick responsiveness and a readiness to be led into what is right thinking and right living. These things being true, I now enter into this new relationship with the board of education of our church and the synod of Nebraska, deeply conscious of the responsibility involved. I ask the sympathetic help and co-operation of the friends who desire the successful accomplishment of this great task."

ALUMNI TIDINGS

ALUMNI CLUBS

A Nebraska Alumni association was recently organized at Falls City with the following officers for the ensuing year: Dr. W. R. Boose, '99, president; City Attorney James E. Leyda, '95, vice-president; Kate Heacock, '06, secretary; and Dorothy Morehead, '11, treasurer. George Kline, '00, secretary of the state association, reports great interest throughout the state and intends to organize every county in the near future.

The newly organized Nebraska University Club of Portland is apparently alive and wide awake as the western metropolis in which it flourishes.

The complete organization was effected last November with fifty members enrolled. Since that time enthusiastic meetings have been held regularly every month.

A recent report carries the news of the crowning event of their first year. Invitations were sent to alumni in California, Washington, Idaho, Oregon, and Nebraska announcing the Rose Festival Party to be given by the Portland Club on the evening of June 9.

A large hall was secured for the event. Roses were plentifully used in the decoration. Palms and native ferns completed the festival effect.

The programs were cream colored folders with scarlet cord and tassel. On the front was the University seal and on the back were the names of the patrons and patronesses, officers of the club and personnel of the dance committee. The dances were named from the different varieties of roses popular in Oregon.

Just before the last dance the men led off in the rousing Uni yell. This dance was a carnival event—each couple was given rolls of paper ribbons, scarlet and cream, and green and pink (the Rose Festival colors), and while the orchestra played "Boola-Boola" the crowd yelled and threw the streamers over fine wires strung for that purpose until the music finally changed to "Home, Sweet Home," and the last number was danced in the midst of fallen streamers. It was a grand finale and sent every one home feeling enthusiastic over Nebraska.

The patrons and patronesses were: Mr. P. L. Campbell, president of the University of Oregon, and Mrs. Campbell; Mr. Frank Rigler, Superintendent of the Portland schools, and Mrs. Rigler; Mr. J. R. Wilson, President of the Portland Academy, and Mrs. Wilson, and Mr. and Mrs. R. W. Wilbur.

The members of the dance committee were: Eugene Brookings, J. C. Stevens, Lew Wallace, G. A. Johnson, Chas. A. Purcell, Louise Brace, Mossie Kimmel, Myrtle Keegan, Mrs. G. A. Johnson, and Gertrude Baumgardner.

The officers of the club are: Honorary President, Samuel Avery; President, Louise Brace; Vice-Presidents, J. C. Stevens, Blanche Mickey, and Eugene Brookings; Secretary and Treasurer, L. P. Hewitt.

MARRIAGES

Miss Anna E. Maguire, '03, a sister of Congressman Maguire of Lincoln, was married in June to Dr. Victor E. Gauthier of Duluth, Minn., and her address is 624 Central Ave., Duluth, Minn. Mrs. Gauthier has been teaching in the St. Paul, Minn., schools for the past few years and took an A. M. degree in phychology department of the University of Minnesota in June.

Joseph Carl McReynolds, '04, and Miss Mabel Blanche Sears were married on September 20, 1911, at the First Presbyterian church, Chicago, Ill. After November 1, they will be at home at 6459 Bishop St., Chicago, Ill.

H. Clyde Filley, '03, was married on Oct. 11, 1911, to Miss Creta Warner, at the home of the bride's parents, Lincoln, Nebr. Mrs. Filley was formerly a student at the University of Nebraska and was a member of the Palladian literary society. She graduated from the art institute of Chicago in 1910. Mr. Filley took his M. A. degree in 1911. He is now an adjunct professor of the University School of Agriculture. Mr. and Mrs. Filley will be at home at 2537 S St., in Lincoln, after November first.

Marion C. Bell, '04, and Francis E. Fleck were married Sept. 27, 1911, at the home of the bride's parents, 919 C St., Lincoln, Nebr. Mr. Fleck is connected with the Philadelphia offices of the Pennsylvania railroad. In addition to being a graduate of the University of Nebraska Mrs. Fleck finished the library school of the University of Illinois, where she was a member of the Alpha Xi Delta sorority. She held a position in the library at Bryn Mawr and later held a position in the library of the University of Nebraska. Mr. and Mrs. Fleck will be at home after Dec. 10, 1911, at Rosemont, a suburb of Philadelphia.

Alice Venters, '05, was married on September 6, 1911, to Charles A. Lambeth at Syracuse. Mr. Lambeth is in the clothing business at Syracuse.

A social event of more than ordinary interest to Fremont social circles was the wedding of Miss Helen Gray, '09, to William Robertson, '09. The ceremony took place October 4, 1911, at the home of the bride's sister, Mrs. E. O. Jones, Sioux Falls, So. Dak. After a short visit at Fremont, Mr. and Mrs. Robertson went to Plattsmouth, Nebraska, where they will be at home after November 1, and where Mr. Robertson is engaged in the practice of law.

Ida Luella Rutledge, '10, and Charles Dudley Bohannan, '10, were married on October 19, 1911, at Grace M. E. church, Chicago, Ill. Mr. and Mrs. Bohannan will live at Madison, Wis., where Mr. Bo-

hannan holds an assistant professorship in education, University of Wisconsin.

PERSONAL ITEMS

W. H. Snell, '73, who belonged to the first graduating class of the University, recently visited Judge Letton of Lincoln.

Charles N. Little, '79, is professor of civil engineering at the University of Idaho, Moscow, Idaho.

Paul F. Clark, '87, recently made an automobile trip to Topeka, Kan.

Thos. L. Hall, '90, is the republican nominee for railway commissioner.

L. S. Storrs, '90, is vice-president of the Connecticut company, New Haven, Conn.

A. M. Troyer, '91, is now a nurseryman and fruitgrower at Fairhope, Alabama.

Chancellor Avery will leave for the Pacific coast October 30. He will address the alumni at Boise, Idaho, Portland, Oregon, and Seattle, Wash.

Daniel Worth, '92, is located at Kingman, Arizona, as attorney at law. Mr. Worth has been in Alaska for many years and, it is said, has "struck it rich" in mining. He writes that he is in excellent health and prosperous, following his big strike in the far north. Nebraska alumni are all glad to learn that Mr. Worth is still among the living, as he had been reported as being dead.

A. J. Weaver, '95, and P. B. Weaver, '00, are working up a big apple industry at Falls City.

Timothy F. McCarthy, '96, is engaged in railroad work at Calgary, Alberta, Canada.

Eva F. O'Sullivan, '97, who has been teaching science in the high school at South Omaha, is now at the Omaha High School in the same work.

A card recently reached Lincoln stating that Ella Matthews, '97, who is a missionary teacher in Anglo-Chinese School, Oldham Hall, Singapore, Straits Settlements, left Aug. 28, 1911, expecting to travel for about eight months. She expects eventually to reach the "best country in the world," the United States.

Miss Nellie Compton, '98, has been elected president of the state library association.

Orlando Y. Kring, '99, an attorney of Omaha, is traveling for the Bankers Life Insurance company of Lincoln.

Floyd Seybolt, '99, has sold his interest in the Citizens bank at Geneva.

Eleanor T. Miller, '00, is working for her Ph. D. at Columbia University, New York. She holds a fellowship at the Teachers College for 1911-12 and is president of the Students' Executive Council of the Teachers College, 1911-12.

R. A. Doubt, '01, has ceased to be connected with the General Electric Co. and has entered the hardware business at 733 E. 50th St., Chicago, Ill.

V. B. Hogan, '01, is representing the West Publishing Co. at Tulsa, Okla.

S. C. Hawthorne, '02, now resides at 1142 K street, Lincoln.

A. E. Main, '02, writes from Hot Springs, Ark., where he is electrical superintendent of the Hot Springs Water Co., that he had received a University of Nebraska commencement program and that he regretted very much that he was unable to attend.

Myrtle V. Price, '02, is at home at Albion.

Fern S. Baker is now county attorney of Sioux county. He is a member of the class of 1903 and formerly lived at Blair.

Sarah L. Doubt, '03, is beginning her third year in the high school of Parsons, Kan. A new biological laboratory and class room are being equipped for her department, and conditions are very favorable for successful work.

O. J. Fee, '03, who is making an extended tour of the Pacific coast, is visiting friends in San Francisco.

J. R. Fulk, '03, superintendent of schools at Seward, is making a special study of moving picture shows. He expects to prepare a paper on the character and effect of these amusement places.

F. A. Hagelin, '03, has moved his law practice from Caldwell to Nampa, Idaho.

F. A. Le Mar, '03, has removed from Osceola to Humphrey, where he is continuing as a practicing physician.

Attorney J. Dean Ringer, '03, of South Omaha refereed the Lincoln-Ida Grove high school game.

Anderson W. Clark, '04, is superintendent of the Child Saving Institute of Omaha. His address is 334 N. 41st St., Omaha.

C. H. Hinman, '04, is superintendent of extension, State Agricultural College, Ft. Collins, Colo.

B. R. d'Allemand, '05, has in charge the supervision of the Kansas national forest, with headquarters at Garden City, Kan.

Leon Pepperberg, '05, is now mining geologist for the Southern Pacific railway.

Louise M. Allen, '06, holds the position of state seed analyst and is located at No. 414 Mehlhorn bldg., Seattle, Wash.

Reports have just reached this department of the death of Earle Winfield Brigham, '06. Mr. Brigham died in 1908.

Maude E. Emerson, '06, is instructor in mathematics, Western Union College, LeMars, Iowa. This is her second year in this position.

Retta F. Hooper, '06, now Mrs. G. B. Brown, resides at Chappell.

Julia P. Knutzen, '06, is teaching in the high school at Wood River.

Anna M. Lute, '06, is a scientific assistant in the Bureau of Plant Industry, Department of Agriculture, Washington, D. C. Miss Lute will be stationed at Berkeley, Cal., from November until July, 1912.

E. G. Montgomery, '06, has an article in the October number of the Popular Science Monthly on "Perfect Flowers in Maize."

Ethel E. Pope, '06, is teaching German and Latin in the high school at Florence, Colo.

G. W. Prichard, '06, is a practicing physician at Essex, Iowa.

C. E. Temple, '06, has accepted the head of the department of botany at the University of Idaho at Moscow. He was formerly an instructor at the University of Michigan.

Adolph H. Wellensiek, '06, is now located at Lincoln as salesman.

Edwin Zimmer, '06, who took the LL. B. degree at Northwestern University, is practicing law at Nebraska City.

Mrs. John Beck, '07, formerly Clara Malick, now resides at Beatrice, where she has become a pharmacist. She is one of few women to enter this profession.

C. L. Meyer, '07, is engineer and sales agent for the Trussed Steel Concrete Co. of Detroit, Mich., and is located at Dallas, Texas.

Niels F. Petersen, '07, has become instructor in botany in the Louisiana State University, Baton Rouge, La. He has been at work all summer in the

bontanical laboratory of the University of Nebraska, preparing a manual of the higher plants of Nebraska.

Roy G. Pierce, '07, is in the U. S. forest service and is stationed at Halsey, Nebr.

Theodore Benda, '08, is principal of schools at Curtis, the site of the new school of agriculture for southwestern Nebraska.

Minnie Bristol, '08, is teaching at Waco.

Moss Kimmell, '08, who holds a position in the English department of one of the high schools of Portland, Oregon, visited with her parents in Lincoln during the month of August. Her homeward route included a trip by steamer from Portland to Los Angeles with a stop at San Francisco and a trip thru Arizona and the Grand Canyon. With her sister, Grace, '10, she returned to Portland by September 1.

Leo S. Legro, '08, is practicing law at Spencer.

C. V. Stewart, '08, is manager of the Palmyra Telephone Co., Palmyra.

Rosalie Stuart, '08, died at the home of her parents in Lexington, Nebr., July 4th, 1911.

Leroy Dey Swingle, '08, who was formerly zoologist at the University of Nebraska, now holds the position of parasitologist, University of Wyoming, Laramie, Wyo. Dr. Swingle was married immediately after graduation at Nebraska to Miss Minnie Ruth Allen, the ceremony taking place at Seattle, Wash. Mrs. Swingle is a graduate of Seattle Seminary.

Frank R. Vosacek, '08, has become science teacher at the high school of South Omaha.

Mrs. Katherine Doyle Edmunds, '09, has removed from Colorado Springs, Colo., to 3011 Prospect Ave., Kansas City, Mo.

Walter C. Giffen, '09, is principal of the Dunbar schools.

Edith Grimm, '09, who took the A. M. degree last spring at the University of Nebraska, is teaching in the high school at DeWitt.

Celia E. Harris, '09, has changed her residence from Webster Groves, Mo., to Sabula, Mo.

James B. Harvey, '09, formerly an engineer with the Omaha & Council Bluffs Street Railway Co., has become manager and secretary of the Aurora Electrical Co., Aurora. Mr. Harvey reports the birth of a ten-pound girl on July 4.

George H. Hummel, '09, has removed from Humboldt, to Falls City, where he is starting a general contracting business.

Hattie Liberman, '09, is teaching Latin and German in the high school at Osage, Iowa.

George N. Lamb, '09, is now in the forest service at Washington, D. C. He spent last summer as acting chief in the office of silvics and in field work in Virginia, Maryland, Pennsylvania, New Jersey, and New Hampshire, studying the basket willow industry and making a study of the northeastern hardwood trees. He is in Washington during the winter.

L. B. Olmstead, '09, holds a position in the department of mathematics at the Peru State Normal.

John L. Stahl, '09, is pathologist at the Western Washington Experiment Station, Puyallup, Wash.

J. L. Thomas, '09, principal of the Geneva high school, has been elected to the principalship of the Norfolk high school.

Paul Thompson, '09, is with the "Examiner" at Los Angeles, Cal. Mr. Thompson writes: "I have lost track of events at Nebraska in the midst of business life." He wishes to get into touch again with his class and other alumni.

Clyde B. Toof, '09, last year superintendent of schools at Fairfield, now holds the same position at Plainview.

Selma S. Anderson, '10, who took her M. A. at the University of Nebraska last spring, is teaching Latin and Greek at the University of Omaha.

Pearle Arnot, '10, is principal of schools at Merriman, Nebr.

Charlotte Bushnell, '10, has been elected to a high school position in Sturgis, S. D.

Ora E. Bushnell, '10, is teaching in the high school at North Bend.

Ellen Cannell, '10, is teaching in the grades at Prescott, Wash.

Otto J. Graf, '10, is president of Emmanuel Missionary College, Berrien Springs, Mich. Mr. Graf is serving his fourth year in this capacity.

Roy F. Greenslit, '10, is engaged in the lumber business at Ravenna. He states that he is not married, as some of the papers published it recently.

Frank E. Howard, A. M. '10, is supervisor of the training department, Idaho State Normal School, Albion, Idaho.

Jeanette Lawrence, '10, has charge of the work in physical education in the high school at Allegheny, Pa.

Class of 1911.

Adamson, Esther Mary, A. B., (Lincoln), Teacher in High School Bellaire, Mich.
Akagi, Kinju, B. Sc. Okayama, Japan
Allem, Florence N., A. B. (Lincoln). Teacher Fairbury
Amberson, Alexander Boyd. B. Sc. (Superior). Structural Steel Work 2318 Douglas St., Omaha
Anderbery, Mathilda Christene, A. B. Principal High School Plainview
Anderson, Selma Sophia, A. M. See 1910.
Arnholt, Milton Frederick, B. Sc. 341 N. 33d St., Lincoln
Badger, Mary Belle, A. B. Fairmont
Balderson, Jacob August, B. Sc. Wilber
Barger, Vera Viola, A. B. Physical Director, Y. W. C. A. Tacoma, Wash.
Barns, Ruby Elizabeth, A. B. Teacher Havelock
Barker, Blanche Lucille, A. B. 522 No. 14th St., Lincoln
Barker, Earl Casswell (Summer), LL. B. Crofton
Barrett, Ella May, A. B. Teacher High School Columbus
Barton, Beth Pearl, A. B. (Lincoln). Teacher High School Hebron
Bates, Merton Ong, LL. B. Law and Newspaper Editor St. Edward, Neb.
Beckord, Henry George, Ph. G. Waco
Beecher, Mittie Mabel, A. B. Teacher High School Kearney
Beeler, Fenna Caroline, A. B. Teacher High School North Platte
Beghtol, Jessie Gretchen, A. B. 1738 N St., Lincoln
Behle, Lillie Ida Bell, (Mrs. E. A. Boostrom) A. B. Stromsburg, Neb.
Bell, Dwight Day, LL. B. See 1909.
Bell, Percival Howell, LL. B. (St. Paul) Superintending a farm Robstown, Texas
Bennett, Charles Abel, B. Sc. 2117 Maple St., Omaha
Benson, Charles Emile, A. B. Fellow in Philosophy, U. of N. Lincoln
Berg, Howard George, B. Sc. South Omaha
Berquist, William Gerhardt (Summer) A. B.

Bierman, Theodore H., A. B. Hastings
Biles, Jessie, A. B. (Pender). Teacher of Domestic Science, High School Wahoo
Bills, Breta, A. B. At Home 1503 H St, Lincoln
Birge, Alice Miranda, B. Sc. in Agri. At Home North Platte
Birkby, Maude, A. B. Nebraska City
Bischof, George Hugo Joseph, B. Sc. Hardware Nebraska City
Bishop, Earl Stephen (Summer) A. M.
Bolibaugh, Charles Godfrey, B. Sc. in E. E. Westinghouse Elec. & Mfg. Co. 810 Franklin Ave., Wilkinsburg, Pa.
Bolinger, Hugh J., A. B. Bogue, Kansas
Boyce, John Shaw, B. Sc. in Agri. Lincoln
Brain, John Bell, LL. B. Sec. School Supply Co. 1547 So. 28th St., Omaha
Bratton, Lester George, B. Sc. Engineer Neb. Tel. Co. 825 No. 18th St., South Omaha
Briggs, Arch Lee, B. Sc. Oconto
Brown, Benjamin Alonzo, LL. B. Lynch
Brown, Mary Ellen, B. Sc. in Agri. Instructor in Home Economics, University School of Agr. Lincoln
Buller, Jacob P., A. B. Teaching Henderson
Bullock, Theodore Tunison, A. B. 856 No. 25th St., Lincoln
Burke, Frank Charles, LL. B. 204 S. 11th St., Lincoln
Burke, Joseph Patrick, B. Sc. in M. E. Lexington
Burritt, Esther Mosher, A. B. Teacher in School of Agriculture Lincoln
Busk, Myrtle Elizabeth, A. B. Omaha.
Cain, Harry Neal, B. Sc. Falls City
Calhoun, Erma Irene, A. B. Ashland
Cameron, Janet Grey, A. B. (Lincoln). Teacher High School Gordon
Cattle, Robert Turner, LL. B. Seward
Cherrington, Ben Mark, A. B. Sec. Y. M. C. A. Berkeley, Cal.
Clancy, Phillip Windsor, B. Sc.
Clearman, Mona Lois, A. B. Teacher High School Minden
Coad, Ralph George, A. B. 3718 Farnam, Omaha
Collier, Nelson Martin, B. Sc. Fairbury
Collins, Sidney Morrison, LL. B. Lincoln, Neb.
Coon, Gertrude Lorella, A. B. Red Cloud
Coons, George Herbert, A. B. University of Mich. E. Lansing, Mich.
Coulter, Harral Wheller, B. Sc. In Mortgage Loan Co. Temple Bldg., 614-618 Grand Ave, Kansas City, Mo.
Crocker, George, A. B. With National Lyceum Bureau Lincoln
Cully, Jessie Margaret, A. B. Teacher High School Loup City
Cusack, Harry Christopher, B. Sc. Bank Clerk North Bend
Dale, Philip Marshall (Summer) B. Sc. (Greenwood) Medical Student 311 So. Ashland Blvd., Chicago, Ill.
Dalton, Laura Irene, B. Sc. in Agri. (Lincoln) Teacher Domestic Science, High School Coryden, Ia.
Danley, Ernest Everett. LL. B. (Axtell) Lawyer Hastings, Neb.
Davis, Florence Emma, A. B. Teacher in Bancroft School 327 No. 13th St., Lincoln
Davis, Helen Bissing, A. B. 1345 So. 18th St., Lincoln
Decatur, Charles Edward, Jr. (Summer), LL. B. 1315 Reed St., Grinnell, Ia.
Dickinson, Frank, A. B. (Stanton) Scholar in Philosophy U. of N. 535 No. 16th, St., Lincoln
Dinsmore, Francis Elmer, A. B. 1441 So. 11th St., Lincoln
Dixon, Howard Emerson, LL. B. Attorney at Law Elgin, Oregon
Dobbs, Stuart Piper, LL. B. Sporting Editor Press Bldg., Lincoln
Dobson, Arthur Allan, B. Sc. 945 D St., Lincoln
Dohner, Florence Lyman, A. B. (Lincoln) Teacher in High School Beatrice
Dobry, Charles Wesley, LL. B. St. Paul
Douglas, Lynn Hutchison (Summer), B. Sc. in Agri. 1721 Q St., Lincoln
Drake, Nellie Boyd, A. B. (Broken Bow) Teacher in High School Wood River
Dufur, Jessie Fae, A. B. (Lincoln) Teacher High School Bancroft
Dugdale, Allison Harold, B. Sc. 423 So. 28th St., Lincoln
Dutton, Florence, A. B. Hastings
Edgecombe, Tyler Mengel, B. Sc. in Agri. Reporter Daily Express Beatrice, Neb.
Egen, Thekla Wilhelmine (Summer), A. B. (Omaha) Principal Cortland High School Cortland, Neb.
Erickson, Clara Almeda, A. B. Oakland
Erickson, David Leonard, B. Sc. Assistant in City Engineer's Office 1428 Vine St., Lincoln
Erickson, Leonard William, B. Sc. Draughtsman Engineer's Office, Lincoln 222 No. 16th St., Lincoln
Ernsberger, Iva Belle, A. M. See 1907.
Evans, Clark Bentley, LL. B. Wisner
Ewing, Halle Laura, A. B. Assistant Physician Hospital for Insane Lincoln
Farley, Fayse Florence, A. B. 719 Beaver Ave, York
Feemster, Howard Calvin, A. M., A. B. Drury Col. 1902 York
Field, Allen Wescott, Jr., LL. B.
Field, John Wesley, A. M.; A. B. Union Col. 1910.
Field, Kate, B. Sc. in Agri. 1828 N St., Lincoln
Filley, Horace Clyde, A. M. See 1903.
Fleming, William, A. B. Teacher High School Randolph
Foote, Paul Darwin, A. M.; A. B. Adelbert Col. 1909.
Ford, Herbert, A. B. (Humboldt) Student 47 M. D. Hall, Uni. of Chicago, Ill.
Forman, William Olivet, B. Sc. Cold Springs, N. Y.
Foster, George Nimmons, LL. B. (Sterling) Student Law and Political Science 5556 Drexel Ave., Chicago, Ill.
Francis, John Arthur, B. Sc. Box 375, Cheyenne, Wyo.
Frederick, Karl Phillip, A. B. Editor Journal Y. M. C. A., Lincoln
Fry, Annie Clarisse, A. B. Studying Music 2024 Binney St., Omaha
Funke, Minnie Marguerita, A. B. Blue Hill
Gaeckler, Maude Hazel, A. B. 2009 F St., Lincoln
Gail, Floyd Whitney, A. B. Graduate Student 1602 Vine St., Lincoln
Galloway, George Davis, B. Sc. Lumber Business. Holdrege
Gantt, Edith, A. B. Teacher High School. Clarks
Gardner, William Henry, A. M.; A. B. Nebraska Wesleyan University, 1910. County Superintendent Lancaster County. Lincoln

George, Clarence Winfield, A. B. Teacher in High School. Humboldt, Nebr.
Gilmore, Oden Sebastian, LL. B. York
Goble, Wade, A. B.
Gooden, Alta May, B. Sc. in Agri. 1620 Washington, Lincoln
Goodfellow, Marie Isadore, A. B. Teacher High School. Syracuse
Graff, Otto Julius, A. M.; A. B. 1904 Union College; President Emmanuel College. Berrien Springs, Mich.
Graham, Cylde Thomas, B. Sc. Avoca
Graham, George Harvey, A. B. Omaha
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NEEDED ADJUSTMENT OF RELATIONS BETWEEN SECONDARY SCHOOLS AND COLLEGES

G. W. A. Luckey, Head Professor of Education.

(Presented before the National Council of Education, 1911.)

If I am to add anything worth while to the message of the morning it is because my thought and experiences shall help you in some way to see more clearly the Problem that confronts us.

We have reached a stage in development wherein we are beginning to realize that something is wrong with the machinery. It does not ring true. The gearing needs adjustment. There is danger of explosion and loss of life. The wastes are already known to be enormous.

It is much easier to discover wrong than to right it. But the teacher must do both. I am speaking to a body of experts most of whom have given the problem long and earnest consideration. Together we ought to be able to make some suggestions that will have lasting value. A clear statement of the problem is the first step toward its solution.

The fundamental problem which we have to solve is the meaning, purpose and development of life. Our topic covers but a small part of a larger and deeper subject. Unless we are able to see in perspective we cannot hope to give the true solution to any phase of this greater subject. As seen in organic evolution, at least in the earlier stages, life is naturally progressive, changing with growth from lower to higher forms. This does not exclude the possibility of retrogression and is, I think, equally true whether we consider growth in plants, in animals or in man. So far as is known life exists only in and through an environment, and takes on, or changes with, the features of that environment. We speak of this force as the law of adaptation, and note its workings through the laws of variation and natural selection. Man by taking advantage of these laws, has been able to adapt plants and animals more quickly to his needs. But these are the laws of life and affect men the same as they do plants and animals. Hence we must have them in mind when we come to consider what shall be the treatment of the boy and girl in any part of development.

When we come to the solution of these problems we do not differ so much as our words seem to indicate. What we have in common is far greater than what we have that is different. Our submerged self is many times greater than that which is seen. Language is a late development and may or may not touch the soul vitally. When we really see the deeper truth that is within us we are not far apart, however crudely we express it.

Life is a great spiritual force which man is able to take hold of, use and by a sort of mutual interaction, adapt to his needs. Through the working of this force man is brought into relation with the whole plant and animal kingdom. He is subject to the same physical laws. Knowledge pertaining to the one field will be helpful in the other. It is this unity of life forces that one must see in order to adjust the parts to the whole.

It is not easy to give a satisfactory definition of education. It covers such an extensive field. We are apt to think of education as both static and dynamic—as a product and a process. In the first instance, it is the gathering, the conserving and the transmitting of knowledge; in the second, it is a matter of progressive adjustment, of individual development—a feeding of the soul. In the latter sense, education is the giving of form, efficiency, and initiative (a dynamic action-system) to an organism or group of organisms when they are growing.

Whatever our concept of education, I believe, we agree that all true education is individualistic—a growth or development from within out. To awaken the individual consciousness and to teach individuals to see and to live aright is the chief purpose of education. This thought must lie at the bottom of all true instruction. True teaching always deals with universals. The material of education is always past experience—something that has been, not necessarily what is, or is to be. The material is always accumulating and soon becomes too great to be acquired by any one mind. Besides its acquisition may tend to draw us away from the present and separate us from real life. Each teacher is apt to feel that what he has experienced is all important.

At birth the child is possessed of life and certain inherent qualities, what more he takes on must come through his environment. This is also true, in a more limited sense, of the plant. Nature gives it roots for purposes of growth. Man has special organs. When the roots are injured or destroyed new ones take their places, not so with the special senses.

In the education of the people there are two things we can trust—in the physical world the laws of nature, in the spiritual world the common sense of

the people—social consciousness. We can never get far away in our character-building from public opinion. Neither can the high school become far removed from the interests of the community and live.

No one can truly teach what he does not live. In language, in history, in art, in science, we can teach the past only by living it again in the present. In the race as in the individual there are psychological moments or inspirational periods when life seems richer and truer than at other times. Such periods in the civilization are the ones we desire to store in memory and to live again in thought and action. These are the culture periods that furnish us with the best product of our civilization and inspire us to noble needs. But in order that this material shall be of any value it must touch the soul and become reincarnate. No amount of memorizing and restating unappreciated facts will aid one to see, appreciate, and live the best life of the twentieth century.

The children of today are the rulers of tomorrow. Today they are in our keeping, but tomorrow we shall be in theirs. It matters little whether it is my subject or yours that is found to be of waning value. The trust is too great to permit of quibble.

What I have endeavored to bring to your mind, is the order and unity of life. There is an individual unity and a larger racial unity, or even world unity —an individual whole and a community or social whole. When we feel, think, or do, it must be as individuals. The initiative must come from within. We can train animals, but we must educate children; in the former we limit or destroy individual initiative; in the latter we stimulate it and increase self-direction.

Individuals are borne with the possibilities of life, but are in no true sense living. They must be awakened and made to see the great possibilities that lie within their graps—opportunities that are meant for them alone. To enable them to see their places in the world order is the problem of the teacher. Unless the teacher sees this order he may hear lessons, but he can never teach. When he sees the child in its past, its present, and its possible future, he will have less difficulty in determining the nature and order of the subject-matter to be used. He will be interested in and concerned with the child through every step of its progress. The expert gardener is not interested in the particular tree per se, but he is interested in its heritable characteristics, its past, its present, and its possible future. How much more should we be concerned with the whole child.

We can only truly determine what is the best education for the individual in the high school when we know the individual, and further know what has gone before and what is to follow. We must not forget that the school is established for the child and not the child for the school. Each grade or step from the first to the last must be conceived as a part of a larger whole, and planned with reference to the particular needs of the individual child. When this is done in the grades, the high school can well afford to accept the product, and when this is carried out in the high school, the college can equally well afford to take the product.

This will necessitate a complete reorganization of our present system. But I think the time is ripe for it. Take a single illustration, we have recently discovered that all human beings are vitally connected. We are links of one mightly chain—what injures one, indirectly affects all. We are apt to think that this condition was always true; although we, in our ignorance, did not know it. This, however, is not the case. It is a condition that has been brought about in recent years by the advance of science and the changed social and commercial relations. The primitive man contained but little in his soul that was vital to his neighbor. His death meant little loss and more food for others. Wars of extermination were the natural products of the age. Today the arteries of trade and commerce, of science, literature and art, are bringing us rapidly into a world whole. Arbitration is taking the place of war. No one under the present system can live within himself. Ignorance and low motive is dangerous to all, whether found in the train-dispatcher, the engineer, the bank teller, the preacher, or the teacher.

Does it not seem surprising that knowing as we do the great changes that have occurred in civilization and social life, we still persist in using the same curriculum that was used in the middle ages? If to educate means to put the individual into touch with his environment, certainly the studies that were best fitted to put one in touch with the medieval environment and its artisocracy, can not be the studies best fitted to put one into touch with the twentieth century environment and its democracy.

Quoting from a former paper: "In harmony with the laws of physical development there seem to be at least four rather clearly marked stages of mental development. The first covering the period from birth to six or seven; the second extending to fourteen; the third to eighteen or twenty; the fourth continuing through the rest of plastic life. There are overlappings and some elements and needs common to all periods, but the distinctions are sufficiently marked to be carefully noted in all true education.

The first is the kindergarten period, in which the child through the exercise of instincts gains intelligence and acquires a limited amount of muscular control. As Froebel has said, it is the period par excellence for rendering the inner outer. The second is the period par excellence for gathering simple facts, concrete material; for gaining fundamental muscular control and acquiring the use of the fundamental instruments of education, e. g. reading, writing, drawing, music, numbers, and the elements of language, and science. The third is the period of youth, the period of organization and construction, of generalization and the perceiving of relations; the period of transition from boyhood to manhood, from being self-centered to altro-centered. The fourth is the period of specialization, of research, of purer and clearer thinking, and of constructive willing. It is the time of service, of vocational activity, of the Master's business and the world's work."

If we have rightly characterized the different stages of development, the high school period stands out as the most trying and vital of them all. It is a period of rapid change, of ideation and castle-building; a struggle between individual consciousness and group consciousness, between selfishness and service. It is a period when the student is old

enough to do racial harm, but not old enough to foresee the results of his acts.

Because the period is so vital, our high schools should enroll all the children of the community of high school age instead of only one-twentieth of them. The teachers of these institutions should be free to work out their own salvation according to local needs and the immediate interests of the child. I believe when we understand one another this is virtually what we all want.

I have suggested what seems to me to be the common elements or absolute essentials to be required of all children in the elementary grades. These are the instruments that are to unlock the granaries of civilization. In acquiring the use of the instruments of thought and expression the child will be brought into contact with much useful knowledge. The bright child, in good health, ought to do this elementary work in six years, the average child in seven, the slow child in eight. This would bring the average child to the high school at thirteen. With a standard high school course of four years, the average individual would be ready for college at seventeen. If the bright boy and girl are able to finish the high school course in three years, which I think is feasible, then it would be possible for the extra bright child to be prepared for college at fifteen, the bright child at sixteen, the average child at seventeen, and the slow child at eighteen or nineteen.

What shall be the high school course? I shall permit the high school teachers of the various communities to answer. They know or ought to know the peculiar local conditions better than I. But in closing I am going to make a few suggestions which I think ought to be and will be acceptable to the college and the high school alike.

What shall constitute the entrance requirement of the college?

Examining the curricula of the various secondary schools today we find a great variety of subjects and these will doubtless increase as we ease up somewhat on the "fitting for college" idea. The most prominent of these subjects can be grouped under the following heads:

1. English.

2. Foreign Language—Greek, Latin, German, French, Spanish.

3. Mathematics—Beginning and Advanced Algebra, Plane and Solid Geometry, Trigonometry.

4. History and Social Science—Ancient, Medieval, and Modern History, English and United States History, Civics, Economics.

5. Physical and Biological Sciences—Physics, Chemistry, Botany, Zoology, Physiography, Agriculture, Physiology, General Biology.

From these subjects I think we are justified in making up the entrance requirement somewhat as follows:

1. The student should show the completion of at least fifteen units of credit from an approved secondary school, three of which must and four of which may be in English. (A unit represents the equivalent of one course carried for one year, recitation periods of not less than forty minutes occurring four or five times per week.)

2. At least two units should be required in a language other than English, and if but two units are offered they should be in the same language.

3. He should be required to offer at least one unit from each of the following groups: 3, 4, 5 (above). This is for the sake of variety and balance.

4. He should be required to offer at least three units in some one of the above groups other than English. This is to give continuity of thought.

5. The remaining five, or possibly six, units, should be accepted from work credited in any approved high school toward its diploma. There is possibility of abuse here, but I am willing to trust the good sense of the high school men and women.

6. No credit for less than one-half unit should be accepted towards college entrance.

This scheme provides for nine or ten of the fifteen units as follows: Three in English, two in a foreign language, at least one in each of the following groups, mathematics, history and social science, physical and biological sciences, and one or two units additional to be selected from some group other than English to complete the requirement of three units. The additional units to be left provisionally in the hands of the approved secondary school. When the high schools have carried their students through the work as indicated above the colleges should open their doors to the graduates and encourage them to enter by every legitimate means.

The limit of this paper will not permit me to give the reasons for the entrance requirements as herein indicated, but from beginning to end I have had in mind the immediate needs of the high school boy and girl for which the schools are established.

Since writing the above my attention has been called to the revised entrance requirements of Chicago University, and the report of the Committee on the Articulation of High School and College, I agree in the main most heartily with both.

LABORATORY EQUIPMENT FOR BOTANY IN THE HIGH SCHOOLS

Charles E. Bessey

(Read before the botany and zoology Round Table of the Kansas State Teachers' Association at Topeka, November 10, 1911.)

The topic you have assigned me is suggestive of the progress that you have made in the teaching of botany in the high schools of this state. A few years ago no committee would have taken it for granted, as you seem to have done, that instruction in high school botany involved any other room than a class room, or that there was anything connected with botanical instruction that might be called "equipment." It is an omen, as I interpret it, that you have reached a point in the development of botanical teaching which is beyond the crude, primary stage which so long prevailed. And this enables me to congratulate you, for there are still many places in the country where this stage of advancement has not yet been reached.

The Laboratory Room

In the first place, the botanical laboratory should be a room set aside for this purpose alone. It should be just a laboratory, not a class room, nor a room for general study. It must be a shop in which botanical work may be done, and should be kept sacredly for its one purpose.

The room should be given place when the building is planned. It will not do to wait until the building is completed and then make the best assignment possible, for then alas it is often quite too late to do more than make the best of a poor selection. The

architect should provide a long narrow room, preferably on the northerly side of the building. A width of twenty feet is sufficient, while its length should depend upon the size of the classes to be accommodated. By a compact arrangement of the tables a room 20 x 20 feet can be made to accommodate 20 students at once, and one 20 x 30 feet, 30 students, but this requires too close crowding, and should not be done unless it is absolutely necessary. And when done the utmost care should be given to the proper ventilation of the crowded room.

The laboratory should be conveniently placed near to the teacher's study, so as to permit quick and easy passage from one to the other. It is desirable also that the laboratory, study and class room should be near one another. A good arrangement is one which places the study between the laboratory and the class room, allowing the teacher to pass easily to one or the other.

Windows. The windows must be broad and high and should look to the northerly part of the horizon. In a room 20 feet wide the windows should be on one side only, and this is the preferable arrangement. In order to avoid the interference of light by shrubs and trees the laboratory should generally be above the basement story, and in many cases, above the main story, also.

Heating. The heating of the room must be equable and fully under control. In order that the pupils may do their work to the best advantage the temperature must be neither too high nor too low. The optimum for the best work can be determined by a little trial. In my own experience I have found that about 70 degrees Fahrenheit (21 degrees Centigrade) is the best for most pupils.

Tables. The laboratory tables should be made of heavy material. The tops should be of 2-inch planks, while the frame and legs should be of large sized timbers. Heavy tables are steady, while light ones are unstable and shaky. In height the tables should be about 30 inches. As to size and shape I have found wedge-shaped tables nine feet long, and five feet wide at the base, to be most convenient. They should be two feet wide at the narrower end, which should be rounded. They are placed with the broad end toward the window, and when of the size described witll accommodate three pupils on each side, and one at the end. The sloping of the sides prevents the pupils nearer the window from cutting off the light from those further back in the room.

Chairs. The best type of chair is that with a screw for changing the height of the seat, so as to adapt it to pupils of different sizes. The chair should have a firm back (not a spring back).

Water and Gas. Water should be brought into the laboratory at a small sink of ordinary construction. Where possible, gas should be brought into the room, and one or more burners should be on each table.

Microscopes. The microscopes should be of the compound type, and of a standard pattern, and construction. I am now recommending our high schools to buy microscopes with a rack-and-pinion coarse adjustment, and a screw fine adjustment. Each one should have one eye-piece, and two objectives, the latter 2/3 and 1/6 powers. It is well to add a double nose-piece for the objectives, and a second eye-piece containing a micrometer for making measurements of small objects.

Good microscopes like these may be bought from American makers for somewhat less than thirty dollars, and from foreign makers (German) for considerably less when imported free of duty.

There should be enough microscopes so that each pupil has one for his exclusive use during his laboratory period.

These microscopes should be kept in a convenient locker, at the back of the room, and when not in use this locker should be securely locked, with every instrument with its attachments in place.

Other Furniture, and Supplies. At one side of the laboratory there should be a "material table" on which are placed the specimens and other material to be used for the particular exercise. Shelving conveniently placed should contain the general supply of material and specimens not in actual use. Chemicals, reagents, stains, etc., etc., should be kept in cupboards with doors that may be locked. A properly made herbarium case capable of holding several thousand specimens should be in the room where it can be easily reached. Last, but by no means of least importance is a good blackboard fastened at a good height to the wall at the back of the room.

The Class Room

Class rooms are so common in all school buildings that I do not need to describe one for botanical uses. I am sure that in any modern building one may find rooms well suited to botanical classes. In all of our best buildings the ventilation, lighting, heating, seating are well cared for, so I need make no changes in the specifications as they are usually drawn up. However on a few points I may add to the usual specifications, as follows:

Demonstration Table. There should be a large table for the use of the teacher in making demonstrations with plants. Such a table should be provided with many drawers and closets in which all sorts of appliances and pieces of apparatus may be kept, and I may suggest in passing that these drawers and closets should be capable of being securely locked. Where it is possible the demonstration table should be supplied with water (including a tank), gas and electricity.

Charts. No class room is complete without some well-selected charts, and for these a convenient rack must be provided upon which to hang several charts simultaneously. In fact I have found that it is a good plan to have several of the more important charts hung in plain sight of the class for a week or more. In this way the pupils become famliiar with the meaning of the charts much more fully than if they are shown for a short time only.

Black Board. Every class room should be provided with ample black board room, and there should always be at hand a full assortment of colored crayons, especially of green ones. The black board should be so easily reached that the teacher may turn to it with the greatest ease when he wishes to place some diagram or other illustration upon it. The board should be large enough so that a considerable portion of the class may be sent to it for a blackboard exercise.

Other Furniture. On the sides of the room there should be enough shelving and cupboards for the storage of such illustrative material as may be needed in the class exercises. The importance of such material will be granted by all who have ever taught botany, and unless it is protected by properly constructed and conveniently placed shelving, it is not available when wanted.

The Teacher's Study

Too often no provision is made for a study for the teacher in the high school, probably on the theory that the teacher will be kept so busy from morning to night that he can have no possible time for studying during the day. It is not so many years since departmental offices or studies were provided in the colleges and universities, and so the high school authorities are not to be too severely blamed for this omission, and yet I am certain that there are few things that will go further in helping the teacher to do his work well than a conveniently situated study. As said above it should be so placed that from it the teacher may pass directly to the laboratory, and the class room.

And having provided the room, which need not be very large, it should be supplied with certain furniture and appliances, somewhat as follows:

A Desk, which may be securely locked, and for this purpose the common "roll-top" desks are to be preferred.

A microscope Table, conveniently placed with reference to the light, so that it may be used at any time in the preparation of specimens and materials for the pupils' laboratory or class work. On this table, under a bell jar should be the teacher's microscope, with all needful appliances ready for use at an instant's notice. I know that many a school board will object "to supplying the teachers with a microscope," and yet these same men would think it all right for them to supply hoes and plows and shovels for their workmen, or pens, pencils, ink, and paper for their clerks. The ready microscope on a convenient table is no more than the writing materials and proper desk for the clerk in the bank, and there should be no more hesitation in supplying them in the one case than in the other. It does not pay to hire a man and not supply him with the tools he needs to do his work, nor does it pay to employ a teacher and deny him the appliances he needs to make the most of his work.

Shelves and Book Cases should be placed in the teacher's study so that such materials and specimens as he may be preparing for his class may be kept safely until wanted. In the book cases such books should be kept as are of immediate need in the class room or laboratory, or as must be consulted by the teacher in the preparation of his lessons, lectures, and examinations.

Chairs and Other Furniture. Of course chairs should be provided, but too often a matter of this kind is not thought of, the whole attention being seemingly fixed upon the class room and laboratory, and the teacher's needs or convenience being quite overlooked.

On the walls of the teacher's study should be found the pictures of some of the men who have figured prominently in the history of botany, and while I am speaking of this matter I may suggest that it would add to the interest of the laboratory and the class room if similar pictures were hung on their walls.

Now What Shall We Attempt to Do?

So with the laboratory, the class room, and the teacher's study properly fitted out, what shall the teacher attempt to do? In other words, what kind of knowledge about plants shall he endeavor to give his pupils?

Bear with me while I discuss this question with some emphasis and candor, for I find that here there are quite divergent views held by the Public, the Textbook Makers, the School Principals, and the Teachers.

What the Public Wants. This is hard to find out, for in general we hear only the loud-voiced people in the community, and these are often the least thoughtful of all. Those who speak out often have a personal end in view. This is well illustrated by the man who after listening to my lecture on fossil botany asked why I had not discussed the trees of the present time rather than those that lived several million years ago. It soon transpired that he had come to consult me as to what trees to plant in his amusement park. He simply had a pecuniary interest in such trees of the present time as might be made to grow in his park. I suspect that not a little of the demand for this or that particular knowledge in botany may be traced to just such an absurd reason as in the case of this owner of an amusement park.

In listening to the voice of the Public it must be remarked further that the voice does not issue from the mouths of experts in botanical knowledge. So the demand for this or that kind of botany is never made with a full knowledge of its relation to other parts of the science. It is quite like the demand of the unmusical parent that her daughter be taught to play the masterpieces without wasting time on the tiresome practice lessons, or of the unartistic mother who would have her daughter begin to paint landscapes and portraits instead of "making ugly black and white drawings of plaster models." When a man tells me that he has no patience with the study of green slimes and micro-fungi, and that he wants his daughter to study the common flowers and the street trees, I am obliged to class him with the unmusical and the unartistic parents who make such absurd demands of the teachers of music and art.

In passing I must note another member of that great body of men that we call "the Public." I refer to the crank, who so often comes to the surface with his insistent demands. I have met not a few of these, as no doubt you have. They are troublesome only as long as they are not recognized as cranks by the rest of the public; after recognition they are harmless, even though they continue to cry aloud. Here may be put some phases of nature study, some forms of bud study and leaf-study, a good deal of the study of weeds, and much of the alleged study of seeds.

Yet I would have you remember that after all is said there is a real demand on the part of parents and others in "the Public" that botany shall contain useful knowledge. And this is a reasonable request on the part of parents. It must be met by you honestly and wisely. They may not know what botany is of most worth, but they are anxious that whatever is of most worth is what you should give to their children. And in order to meet this demand you should be very well informed as to botany in general, so that you may not suggest that which is of least worth, when one better informed might suggest something of much greater worth. Here you must be broadly trained, and to this you must add wisdom and breadth of view. And you must take the good long look ahead, and not be affected by any popular, passing whim.

What the Textbooks Include. There are two prin-

cipal types of botanical textbooks, of course with all degrees of intermediate forms.

In the one type an attempt is made to give the foundation facts and principles of the science, much as is done in chemistry and physics. Only the elements of botany are given in the books of this type, and no special effort is made "to relate the subject to everyday life," to quote a favorite expression of some writers. In the textbooks of this simple type the pupil knows that he is making a beginning only. He knows at every step that he is getting only the most important facts of the science, and that in every direction there stretch great botanical fields upon which he has not the time to enter. He is like the child at the Chicago Exposition who in his first day was taken rapidly over the great area and shown the ground plan, the foundations, the essential features, the most important things about this immense aggregation of objects. If he spent no more time in the examination of the exposition this day's experience was of much value to him as so much positive information, and if he came back the next day and the next, and the next, what he learned the first day became the foundation upon which he built his subsequent knowledge and experience.

In sharp contrast to the textbooks which aim to give in definite and concise form the elements of botany, while very definitely leaving many departments of the subject untouched, are those that try to commend themselves to the public by including a little about everything that is in any way related to the study of plants. Here the publisher's authority has been used in demanding the inclusion of everything that would popularize the book. To some degree the writers have themselves yielded to the impression that current discussion has made upon them. To "fill a demand" seems to have been the purpose of some writers, and it certainly has been the eager purpose of many publishers. So when some people began to talk about ecology the little textboods appeared with a brief chapter headed "Ecology," and accompanied with many very pretty half-tones of photographs or landscapes. Then when agriculture became fashionable in the schools the new editions of these books came out with paragraphs about those newly discovered and hitherto ignored plants, wheat, oats, corn, clover, and alfalfa, and the grasses. People began to talk about forestry, and lo! we have a chapter on "Trees and Forests" in the little books. The latest addition that I have found is a chapter on plant breeding, just as though the high school pupil might become a plant breeder by covering the half dozen to a dozen pages of matter given in the most superficial manner. And so what should be a plain, simple introduction to the essentials of the science is turned into a sort of "variety show" in which everything about plants ever heard of by the author is mentioned, unless indeed it be such commonplace things as the principles of the science. Some people appear to have reached a pedagogical state of mind in which they are quite impatient of the teaching of principles. They seem obsessed by a desire to place the emphasis upon the interesting and useful facts of the science even at the expense of the upderlying principles.

And this is why we have the little textbooks that contain such a wonderful aggregation of interesting text and pictures relating to all the great field from the botanical Dan to Beersheba. There is little thought of laying a solid foundation of science in these books; the one great purpose seems to be to make the subject interesting, and "to relate it to every-day life." What wonder that the pupils who are led through this maze of descriptions and photographs imagine that they have covered the whole field of botany. It is a recrudescence of the "quick-meal" methods of the private normal schools of a couple of decades ago, and is in no way worthy of the name of science.

The Principal's Ideas. It is very rarely the case that the school principal is a trained botanist. Often he knows nothing whatever of the subject, except what he has read in his pedagogical studies. Or he may have taken one of the short courses once all but universal, and still too common in certain schools. In either event he will make a poor guide should he attempt to direct the work in botany. He will quite certainly call it "Biology." The word looks good, and has a learned sound. Yet you need not be told that the "Biology" of the high schools and colleges is not real biology, for that is quite too advanced a subject, requiring a profound knowledge of plants and animals. Biology should be found in the larger universities. It certainly is not in the colleges, and much less in the high schools. In the university it should be the philosophical study and comparison of the structure, functions and habits of the two great phases of living things. In the high schools and colleges, it is merely a mechanical mixture of the study of unrelated plants and animals. The height of absurdity in "Biology" so-called is reached in a recent little textbook in which the animals are studied serially from the lower to the higher, while the plants are studied in a descending series!

Very commonly the principal of the kind now under discussion considers botany to be an easy subject; hence it is slipped into some convenient place in the first year in the high school, and because it is easy, of course any teacher can carry it. So the assignment of the task of teaching the botany class is made to suit the convenience of the whole teaching force. I have in mind a high school in a good town in Nebraska where a teacher knowing very little botany is assigned to teach it, while a graduate of the State University who gave especial attention to botany is assigned to teach not botany, but English! It "was not convenient" to arrange the work otherwise is the excuse. Under such conditions one is not surprised to find that time for laboratory work is given most grudgingly and sparingly. "Botany is of minor importance anyway," say these principals, and "why disarrange the program by allowing more time and a better place to the subject!"

Here and there are marked examples of greater knowledge and intelligence on the part of the principal, and an effort is made to give this science such place as its importance demands. The wisest principal is one who counsels freely with his teachers, finding out their training and preparation and assigning each to the work he can do best. Then he will regard each teacher as somewhat of an expert in the subject in his charge, and his advice will be asked in regard to laboratory time and place. And I am glad to say that I have known principals who deferred to their expert teachers quite after the fash ion of the wiser college presidents!

What can the teacher do? Some of the teachers of botany know very little about it as a science, and at best they can give only a very one-sided view of

the subject. As I have just intimated, sometimes this is not the fault of the teacher. He may have been "assigned" the subject, and botany is therefore quite a secondary matter with him. Moreover, he is normally overloaded with work and frequently hampered and handicapped by non-scientific instructions and requirements. You can not expect much from a teacher under such circumstances, however willing and conscientious he may be.

When however we find a botanist in the teacher's chair, we may look for better results. I have in mind a young botanist, full of enthusiasm, and energy, well prepared as to botanical knowledge, in whom no amount of other work could submerge botany. He led his pupils into the enthusiastic study of plants and gave them an insight into botany as a branch of science. He laid deep and firm foundations, which were equally serviceable for a non-botanical or a botanical superstructure.

With the facilities I have indicated above, if you will give me the teacher who has had sufficient training in botany, I will assure you of good results. It is the man of one-sided or partial preparations in botany who will give an unsatisfactory course. The man who knows botany as a whole will make no serious mistakes, in spite of non-botanical principals, mercenary textbooks, and an unreasonable public.

What Must Be Included.

In a few words let me summarize what must be done in the course in botany in the high school. It should include clear-cut and precise information in regard to—

(1) **The great facts (structural and physiological) of the science,** which are largely obtainable through the medium of the textbook and the classroom:

2.) **The principles of the science,** which again are obtainable in the textbook and class room:

(3 **How to study plants,** which must be learned by experience in the laboratory and the field.

(4) **The place of botany among the sciences,** which requires access to a well-selected library of scientific books.

And now as I close this discussion, which has necessarily wandered somewhat beyond the limits set by you when you asked me to speak on "Laboratory Equipment for Botany in the High Schools," may I ask you to "think on these things." Here and there I have been over emphatic in order that I might arrest your attention. If I have done so to such a degree that you will carefully go over the whole ground again, asking at every step whether the present practices and conditions in the teaching of botany in the high schools are as good as they should be, I feel satisfied, and what I have said will not have been said in vain.

EDUCATIONAL THEORY AND PRACTICE

By Dean Fordyce

Teachers College, University of Nebraska

In the previous issue of this periodical the importance of the lesson plan was discussed. There are several reasons why the material to be taught in a lesson should be organized into a definite line of procedure. In the first place, the teacher in working over the facts to be given, will, if the procedure be of the right kind, not only organize but assimilate the matter of the lesson. This gives that intelligent grasp that makes the teacher master of the situation. No aspect of her work weakens the teacher more than that of being compelled to hold to a book or other source of teaching material. In the second place, this planning of the lesson brings the teacher into that sympathetic rapport with the subject matter which gives an emotional attitude toward the lesson that makes her an inspiration to the class. The third reason is found in the fact that a lesson thus cleared up and pointed presents definite aims toward which the class works.

It is unnecessary to say that the teacher should have a liberal knowledge of the subject matter of the particular lesson to be planned. This knowledge should include not only the data found in the text followed, but those gathered from other sources. This enables the teacher abundantly to supplement the work in the class, which is one of the principal means of vitalizing the lesson; a thorough knowledge of the subject to be taught is not enough however to insure skill in teaching. For this reason great scholars are not always great teachers. It is the observation of the writer that teachers who have had seven or eight years in the study of Latin, or other subjects, need to put more time on the organization of the lesson in a beginning class than those who have studied their subjject for a shorter period. The former know so much about their subject that the fundamentals are often lost in the details. This is most generally true of the specialist. To adapt the subject matter to immature students, it is necessary to sift out the salient facts and to eliminate unnecessary details. The weakness of the specialist in this respect is well illustrated in the following quotation from Doctor Peabody's little volume "Harvard Reminiscences," in which Mr. Peabody contrasts his teaching power with that of Professor Pierce, one of the greatest mathematicians of his time:

"No one was more cordially ready than he to give such help as he could; but his intuition of the whole ground was so keen and comprehensive, that he could not take cognizance of the slow and tentative processes of mind by which an ordinary learner was compelled to make his step-by-step progress. In his explanations he would take giant strides; and his frequent 'You see' indicated that he saw clearly that of which his pupil could get hardly a glimpse. I, on the other hand, though fond of mathematical study, was yet so far from being a proficient in the more advanced parts of the course, that I studied every lesson as patiently and thoroughly as any of my pupils could have done. I, therefore, knew every short step of the way that they would be obliged to take, and could lead them in the very footsteps which I had just trodden before them."

After the material to be taught is gathered, thought over and weighed till the valuable differentiates itself from the worthless, the matter should then be grouped around one or two centers that stand out so clearly that the class cannot be in doubt as to what the aim of the class period is. In the Lesson Plan on Declension found in the prevous issue of this paper there are two co-ordinate centers—the base and the case endings. It will be noted that all the lesson is grouped about these two central thoughts. Rarely should there be more than two such centers. Several give evidence of a weakness in organization. The debater, who has firstly, secondly, thirdly and so on up to fifthly, usually fails to convince.

Ready made questions and partial groupings into

plans for teaching frequently accompany modern school texts: while these are helpful they cannot take the place of the plan made by the teacher for her particular class. First no two teachers would organize a lesson in the same way if they follow their individual bent and they cannot teach skillfully if they do not do this. Secondly, the class taught has individual needs which no cut and dried plan can meet. The Lesson Plan must be made to fit the teaching situation as known by the instructor, which is not the same in any two classes. The age of the pupils, their present attainments, their peculiar relation to their teacher, their grasp of the subject matter under consideration and many other conditions enter that demand a lesson which should be presented in such a way as to respond to specific needs.

HIGH SCHOOL ENGLISH

P. M. Buck, Jr.

We have of late years listened to a great deal of mutual recrimination by colleges and secondary schools. The former exclaim that pupils come to them ill prepared in this or that, or in all subjects; to which the latter retort that the colleges undo their best efforts by spoiling their product through haphazard, careless, inconsequential methods. The noise of this contest has at times been so deafening that the state of education has suffered almost the nature of an insurrection.

Perhaps we shall understand the utter uselessness of this conflict, and the need of mutual co-operation, if we clearly separate the aims of secondary and of college education. Then we may apply our findings to the more immediate question—an ideal training in English in the secondary school.

The "field and function" of education in the high school has been defined by the report of the Committee on the Articulation of High School and College, adopted by the N. E. A. this past summer. "It is coming to be recognized that in a democratic society the high school has a distinct function. The high school period is the testing time, the time for trying out different powers, the time for forming life purposes." In consequence there should be a broad course of studies, and a fairly comprehensive, but by no means exhaustive, presentation of each subject, with the purpose of drawing out each pupil's latent power, as well as of training the powers he is already known to possess. But beside this wide field for orientation there must be sound training in mental discipline; for it is only in dealing with the purely imaginary in geometry that we are permitted to separate depth from extent.

What bearing has this ideal on the course of study in English in the high school and its methods of presentation? Let it be said once for all that I speak of ideals, though I know that ideals are seldom or never found realized. For a teacher without ideals is in a worse state than a ship's master without a compass and chart. The course of study is but the ship's rudder, if we do not have a port to which we steer, our journey may conceivably be beset by wrecks, which are none the less serious because they are of the heart.

The course of study in English and the method of treatment in high school should be minute enough to give careful discipline, and teach obedience to the laws of language; and at the same time broad enough to permit the pupil to see the mutual relation of the individual fragments of the work, their common origin and purpose, and finally their relation to other studies in the school curriculum. This is a large program, but I can hardly see how we can expect even in a measure to be successful if we allow ourselves to hope for less. For the high school course of study must be complete—it must represent the end of one stage in the student's career, a step completed, a step which for many of those who are graduated from the twelfth grade shall be their last. We must not delude ourselves with the oft repeated benison to a graduating class, that what we were unable to give you in the high school, may the college make up its deficiencies.

The course in English in the high school must, in the first place, be disciplinary. This has become a doubly important task upon us since there has been a general weakening of the mental discipline which formerly was gained through mathematics and the classical languages, Latin and Greek. I still believe that the best way to teach English grammar, and the English sentence, and the choice of the right word, yes, even the English paragraph, is through the medium of careful translation. In the days when the boy was early set to declining **mensa** and conjugating **amo**, and to translating Latin sentences, there was no need that he should take more than a supplementary course in English grammer and elementary rhetoric. But now Greek has in verity become, for us in America, I am sorry to say, a dead language; and Latin seems struggling in a losing fight; while foreign languages, German, French, Spanish, are often taught in the "rational" way as grammarless tongues. Hence it has become newly imperative that we in English shift our base of attack. We must supply by intensity of discipline what formerly was supplied by a lengthy study of mathematics, and interminable exercises in construing Latin and Greek.

But this change, though in many ways regrettable, is one that teachers of English may welcome, for it gives them an opportunity, which before they did not have. English has been spoken of as a grammarless tongue. It is no more grammarless than was Latin or Greek, indeed a little more grammarful. There are in the fluidity of English idioms, and the apparent looseness of English syntax, more opportunities for grammatical subtlety than ever obtained in the palmiest days of Alexandrian rhetoricians and grammarians. I should, therefore, recommend a definite course in English grammar and sytnax, with special reference to the English sentence, in the tenth or eleventh grades.

Nor can we say that our consciences are clear in this matter our withers unwrung, even if our high school graduates are woefully deficient in grammatical thinking; for ought they not to have received all such instruction before the ninth grade. But the grammar school is distinctly not a school for grammar. It is not the place to teach anything more than the rudiments of grammar, such elementary things as the parts of speech, the syntax of simply constructed sentences, with relations between phrases, clauses, and words, as children from ten to fourteen can understand and use.

To make room for this drill in the logic of thought, as expressed in the English sentence, I should cut away a corresponding amount of those more or less useless—when carried too far—exercises we so often set pupils in high school to, such as

writing "pretty little nothings," disconnected accounts of camping trips, vacation dreams, and the like, on which the pupils who write, and the teacher who reads, spend a deal of valuable time. For it is a well recognized fact that, though facility in writing often comes that way, there also comes a fatal facility in perpetuating all the evils of a rapid, undigested style, that cling to our newspapers and abound in our magazines. Facility in writing is not always, or even often, an unmixed blessing, as we can all vouch from our own experience.

It is quite true that too much thought about the laws of language spoils spontaneity of expression But are we not a little careless in our use of the term? If spontaneity means utter absence of law and convention, wherein does the spontaneous person differ from the romantic, lawless savage? Is it not rather true that, even with our most elementary processes, there must be a period of absolute rigidity of rule, before there can be that sense of delightful freedom, which comes only from a perfect understanding of the province of all rules, and an unconscious following of their precepts?

Let it not be understood that I would reduce all exercises in composition to a formal application of the principles of grammatical laws. Nothing could be farther from my purpose. But in the romantic desire to cast off all formal restraint our schools have at times gone too far. We must provide openings for the child's expression of his own thoughts. But let us give a place, and a place of some honor, to a careful training in the laws that underlie all logical thinking, for as a man thinks so shall he speak. We desire a little more than the scriptural, "out of the fullness of the heart the mouth speaketh"; for, unless the mind has had some formal training, the mouth may speak all incoherently and to no purpose.

This raises the much discussed question of formal rhetoric. It has been objected that formal rhetoric, if given exclusively, or in too large quantities, renders a child's style stilted and "schoolmastery." I think I know what an unyielding and stiff-necked style is, having seen it only too often. And it is as deplorable a result as may be imagined, a giant vampire that sucks its victim's heart's blood, a car of Juggernath that crushes its devotee, a thousand other equally dreadful things. But unlike the vampire or the car, it may be avoided by a wise limitation. There is an abuse as well as a use of formal rhetoric. But to say that formal rhetoric is out of place in high schools is as absurd as to claim that our children should be content with a formula-less mathematics, or a date-less history, or a constitution-less civics.

But, and here is the problems, these forms, the paragraph, the structural outline, and the like, should be approached, as the formulas in mathematics, or dates in history, or the constitution in government, as means to an end, and not as an end in themselves. It is here that in our work with freshmen in the University we find our greatest difficulty. They know what we mean by the principles of Unity, Coherence, and Emphasis; and can give fair definitions, but only the rare student regards them as aids; rather they mysteriously feel that teachers have invented them merely that there may be something to teach. It is necessary, then, to point out clearly their practical importance. In this we must draw for material from the pupils' reading, their other studies, their experience, anything that will make them think, and at times think hard; and apply to this material the clarifying principles of rhetorical structure. Without the living material the structure will be a dead exercise, giving a mincing, formal style; without the formal structure, the living material will possess neither beauty nor grace.

So much then for the disciplinary part of the pupils' work in English in the high school. It comes chiefly in his written work. There is, however, the other side, which is no less important, to be considered. The course must be broad enough to permit him to gain a fairly comprehensive idea of the wide horizon of English literature, in order that he may make an intelligent answer when he faces the question, how and what to read. Books are not written haphazard, but their authors stand in definite relations to their ages and civilizations. This must be borne in on the student by a careful and living treatment of history, and especially of that portion of history we call history of literature. But in our more or less aimless desire to teach the latter we have taken up an encyclopedia by mistake, taught the most barren of biographies, and lost the fruits of our labor. It is high time for a new method, that will enable us to approach the history of literature as a department of a wider field, the history of a nation's progress in ideals. Then and only then will an author be put into a correct background.

Let me illustrate. Who, unless he be a specialist, cares that Milton, the author of "L'Allegro" and "Il Penseroso" and "Paradise Lost," spent a year or two in Italy, attempted to divorce his wife, served as Latin secretary to Cromwell; that he was born in 1609, and that he died some three score years after, blind, lonely, neglected? We can make the reader perhaps a little sentimental over the picture of the blind poet, dictating to and cheated by his unworthy daughters. But to know his poems we must know the ages when the blind poet lived—the transition from the gay Renaissance to the gloomy Civil War, of which each one of these poems is a mirror.

This living, not encyclopedic, method of approaching the history of literature should be accompanied by a wide range in the books selected for reading and study. Strange, is it not, that it is only in the English departments that we meet with the nice distinction between books for reading and books for study. As though some books were fit only for study and some only for reading. No book is fit for study in the secondary school that is not also deserving to be read for its purely aesthetic or intellectual pleasure. The more books, and the greater variety, we can introduce into our curriculum the better; so long as we can see to it that the pupil reads with pleasure and profit—no more, no less. And I should by no means recommend that all pupils be forced over the same list of books. There are books for all girls, for the majority of girls, for a few girls, and for the rare girl; there are likewise books for all boys, for the majority of boys, for a few boys, and for the rare boy. It is our duty so to introduce these books that the natural and potential aptitudes of pupils be sought out and ministered unto. I should as soon dream of asking a pupil in the mechanical drawing department to paint an impressionistic landscape, as to ask a future plumber with no more imagination than the lead he deals in, to read Coleridge's "Christabel" or Milton's "Il Penseroso." Let us have a selection large enough to take care of this future plumber, as well as of his idealistic brother who is to find his own in art and letters.

Besides, by this wide range of books and this wide range of subjects, from science and history, to art and pure beauty, we shall find a means, and a notable one, to correlate our study with the million and one school and practical interests of each pupil. Do we not regard, only too often, our department as one peculiarly set apart, and hence peculiarly blessed? It is; but only in that it alone can give the fullest meaning to every activity that is stirring in the world about us. And it is partly through understanding these activities in true literature that the hidden powers, latent possibilities of pupils will be stirred and developed. But above all, literature is a means of studying human nature; and it is so easy, by confining ourselves to the few eclectic classics that go to make up college entrance requirements, to let that subtle thing, human nature, escape, like the butterfly, while we plunder the chrysalis.

By using the books that all young people should read as models, we can teach the "how to read"—if we are afflicted with large classes. Then by carefully selecting the others according to the carefully studied needs of our individual pupils, we can lead them to answer for themselves that second of important questions, "what to read." It is only in this way, I believe, that we can reach the individual needs of our future writers, business men, handicraftsmen, and the thousand and one other men and women into which a specialized civilization has divided our democratic society.

Careful intellectual discipline in the application of the principles of form and structure to composition, oral and written; careful and sympathetic direction in the "how to read," and large freedom in the "what to read," this is my ideal of a course of study in English in the secondary school.

UNIVERSITY ATHLETICS

Football

In the opinion of the writer the Nebraska football team of 1911 is probably the strongest aggregation that ever represented the University. Other teams may have been stronger in certain positions, but the five line men with its usual number of strong substitutes may be considered about as strong as any heretofore; in speed, tackling ability and accuracy in handling the forward pass Chauner and Lofgren have had but few equals at the wing positions on previous Cornhusker teams, and never in the history of the game has Nebraska had such a wealth of first class back field material.

The early season practice games indicated unusual strength, speed and versatility and give the Cornhusker supporters hopes of victory in the annual game with Minnesota. In spite of the score of 21 to 0 in this contest the Nebraska team was very nearly the equal of the Gopher eleven when they met on Northrop Field October 21st. The unexpected score of 34 to 0 in the Missouri game the following Saturday demonstrated clearly that Nebraska would again be a formidable candidate for Missouri Valley championship honors. After this overwhelming victory in which Missouri was clearly out-classed in every department of the game, the 6 to 6 score with the Iowa Aggies came to a great surprise. It was clearly evident, however, to those who witnessed this contest and also previous and later games that Nebraska did not, by any means, demonstrate her real strength in this contest. One important contributory factor in this result was a decided feeling of over-confidence on the part of the Cornhusker eleven, but probably the more important factor was the very evident staleness of the team. Just as long as the Minnesota game is placed in the early part of the season and there are five or six hard games included in the schedule just so long may the Nebraska supporters expect this condition of staleness to develop some time in the schedule and make it possible for a weaker team to defeat or play to a standstill the Scarlet and Cream eleven. The practice game scheduled with Doane College on November 11th made it possible for the team to have a long period of rest and recuperation before the Kansas game. There was considerable doubt in the minds of the Cornhusker supporters regarding the ability of the Nebraska team to get back into first class condition for this important contest; however, this doubt was speedily dismissed within two or three minutes after the beginning of the annual contest with the Jayhawkers as the latter's most ardent supporters early realized the fact that Kansas could not possibly expect to stop the assault of the Cornhusker "steam roller." Never in the history of the contests between these rivals has either team scored such an overwhelming victory as that on McCook field last Saturday. What the result of the clash with Michigan on the closing day of the season will be, no conservative critic cares to predict, but if the cogs of the Cornhusker machine work as smoothly as in the Missouri and Kansas games no one-sided contest may be looked for and Michigan will need to demonstrate her position as the strongest team in the west to defeat Nebraska by a decisive score.

The following are the results of this season's games thus far played:

October 7—At Lincoln—Nebraska, 117; Kearney, 0.
October 14—At Lincoln—Nebraska, 59; Kansas Aggies, 0.
October 21—At Minneapolis—Nebraska, 3; Minnesota, 21.
October 28—At Lincoln—Nebraska, 34; Missouri, 0.
November 4—At Ames — Nebraska, 6; Iowa Aggies, 6.
November 11—At Lincoln—Nebraska, 27; Doane, 0.
November 18—At Lawrence—Nebraska, 29; Kansas, 0.

R. G. CLAPP.

JAMES E. LE ROSSIGNOL

The appointment of Prof. James E. Le Rossignol of the University of Denver to the head of the Department of Political Economy and Commerce has been the source of great satisfaction to his many friends both within and without the faculty, who had come to know him during the year 1908-9, which he spent on leave of absence as a member of the faculty of the University of Nebraska.

Doctor Le Rossignol was born in Quebec; received his A. B. degree from McGill College, Montreal; his Ph. D. degree at Leipzig; and has been honored with the degree of LL. D. by the University of Denver. He was Fellow in Psychology in Clark University 1892, Professor of Psychology and Ethics in University of Ohio 1892-4, and Professor of Economics at the University of Denver 1894-11. In addition to the year spent at the University of Nebraska, he has been a special lecturer at McGill University and at University of Wisconsin.

Doctor Le Rossignol has been an author of rather wide range. Among his contributions are:

The Ethical Philosophy of Samuel Clarke, Leipzig, 1892; Monopolies Past and Present, New York, 1901; Taxation in Colorado, Denver, 1902; History of Higher Education in Colorado, Washington, 1903;

Orthodox Socialism, New York, 1906, (translated into Japanese by Y. Inouye (A. M. University of Nebraska, 1909), and published by the Society for General Enlightenment, Tokio, 1908); Little Stories of Quebec, Cincinnati, 1909; State Socialism in New Zealand, New York, 1910, (joint author with William Downie Stewart of Dunedin).

The following reviews by Professor Goodnow in the Political Science Quarterly is representative of the favorable comments made upon his writings:

"Of the many books which represent the interest excited among western European social reformers by the experiment now in progress in the European settlements in the Antipodes, this is one of the best. The product of the combined effort of two men, one of scientific training and the other intimately acquainted, because of residence, with local conditions and the course of legislation. This book promises to give those desirous of learning what New Zealand is doing an exceptional opportunity of realizing their desire. This promise, furthermore, is fulfilled."

AGRICULTURAL COURSES FOR SECONDARY SCHOOLS

A paper prepared for the Agricultural Section of the State Teachers' Association, Omaha, Nebr.

By C. W. Pugsley.

There are doubtless those present who believe that agriculture should not be taught in our secondary schools. I know many people are of that opinion and I respect their views. Other men of equal standing so far as education and apparent intelligence goes, are convinced that agriculture must be presented in our secondary schools. Whether we believe in it or not, we must face the problem as it confronts us today. We cannot shove the matter lightly aside, for it is being forced upon us from all quarters. There is no question in my mind but what agriculture has come to stay in the secondary schools of this state. The important question is, how best to handle the subject at the present time and how to solve the problem for the future.

We are living in an industrial age. There is a tendency to increase the amount of industrial education offered, and in some instances this has resulted in a decrease of the purely literary subjects. The question of the amount of industrial work which should be given in secondary schools is an open one, upon which we will probably not all agree. Our schools are gradually adopting industrial work, and whether we believe they are wise or not, we must meet conditions as they are. The superintendents of the city schools, both in the middle west and in the east, are beginning to realize that the high school, to be of the most use, must fit students for the work of life. They tell us that very few of the pupils who attend the high schools ever enter college. That means that their preparation for life is completed in the high school. For many it ends with the ninth grade, for others with the tenth or the eleventh. The majority of students who enter the high schools quit short of graduation, either from necessity or choice.

In all of the schools a few years ago, and in many today, the preparation which the students dropping out of the high school have had for their life work amounts to a literary preparation. They have been taught how to read and write and spell and compute; they have been taught the history of our country and the important facts relating to the history of the world; they have been given a little insight into the beauties of the literature of this and other ages; they have received something of the fundamental principles of physics and chemistry and a little about botany. All of this must go on as in the past, only we hope in a better way. The amount of training, however, which the student has received in the past to fit him for the work directly in hand after he leaves the school has been very small. Those who have entered the machine shops have had no training along that line; those who go into the carpenter shop have known nothing about the handling and care of tools. It is true that some attention has been given to bookeeping, thus fitting some for their life work, but possibly not as much as should be given.

I think I see in the future two classes of high schools in our cities. One will train those who are inclined along literary lines, the other will train those who desire industrial education. The industrial high school will have several courses. There will be the commercial course, giving bookkeeping, shorthand, typewriting; there will be the mechanical course, dealing with machinery and the handling of tools, and the care and handling of motors; there will be one for telegraph operators, one fitting students for working for telephone companies, electric light plants and street railways, and all those various lines of work which are to be followed by the young men of our cities. There may be some work in agriculture, covering especially crop and animal production. The work offered in this industrial high school will be of just as high a grade as that offered in the literary high school, or in the high school of today. I must confess that my dream of high schools for

the city does not meet the conditions of the high schools of our ordinary country towns. It would be laughable to suppose that we have two distinct high schools, an industrial and a literary, for the average town in the state of Nebraska. One high school is all such a town can support, so we must look to some other solution of the industrial problem for these towns.

In a thesis by Filley in the library of the University of Nebraska, written last year, I find that a summary of the pupils in the schools of Alma, Alliance, Aurora, Beatrice, Broken Bow, Holdrege, Lexington, and North Platte, shows that there are four hundred and seventy-seven, or about one-third, out of fifteen hundred and forty nine pupils who live on the farm. Many of the others are sons and daughters of farmers who have moved to town to educate their children. Many of these pupils will have no education outside of that received in the rural and high schools, and the majority of them will probably follow farming as a life occupation, or if they do not follow farming themselves, will have the direction of farms. It would seem, then, that it might be wise to begin the direction of their minds along agricultural lines while they are in these schools, because the chances are that the high school is the only school they will attend. If we take into consideration the high schools in the towns smaller than those named, we will doubtless find that the number of students who are actually from farms, or are farmers' sons and daughters, is fully one-half. Probably the majority of these will return to the farm before they have taken any more education than is offered in the high school. It will be seen that we have a problem here to meet, that of educating, not only the boys and girls who expect to attend college and enter the various professions, but also those who will enter life work without any further preparation.

Before we go further let us see what other states are doing for their boys and girls. We find that Georgia has nine secondary schools of agriculture, one in each district. These schools are somewhat similar to the School of Agriculture located at Lincoln, Nebraska, and the one which will soon be running at Curtis, Nebraska. Alabama is following the same method as that practiced in Georgia. Arkansas has four seconary agricultural schools something after the same plan. Idaho has two such schools, Nebraska two. Mississippi gives state aid to county agricultural high schools,—one high school in each county. Michigan has six successful county high schools. Minnesota gives state aid to high schools teaching agriculture, providing two-thirds of the amount used for such, if the total does not exceed $2,500.

A summary of the laws shows that agriculture must be taught in the common schools of sixteen states, and that agriculture is required in the examination for teachers' certificates in twelve states. In most of these instances the questions on agriculture asked of the teachers are very general and really amount to little.

Last year I had in my department working for Master's degree two gentlemen, both well known to this audience. They are old school men in the state, having been principals and superintendents at various times. One was Mr. H. C. Filley, now professor in farm management, in the University, and the other was W. H. Gardner, now county superintendent of Lancaster county. These gentlemen were both very much interested in the subject of agriculture in the schools. In talking over the subject matter for their theses, we decided that they could do no better than investigate the present condition of agriculture in the schools of Nebraska, and to make suggestions for the improvement of the subject. The facts concerning the subject in Nebraska, I have taken largely from the investigation carried on by these two gentlemen.

An effort was made to get in touch with every high school in the state. Out of all of those written to, one hundred and fifty replies were received, sixty-nine of which were from accredited schools and eighty-one from non-accredited schools. Out of the hundred and fifty, one hundred and five taught agriculture, sixty four accredited and forty-one non-accredited schools. Agriculture was taught one-half a semester in nine schools, one semester in ninety-eight schools, two semesters in four schools. It was taught in the ninth grade in eighty-six schools, in the tenth grade in five schools, in the eleventh grade in five schools, in the twelfth grade in three, and optionally in five. There were eighteen school gardens reported. Seventy-three reported collections of rocks and minerals, and sixty-one reported soil samples in the laboratory. Seventy-three stated that they carried on laboratory work in agriculture.

This makes a fair showing, if the work is satisfactorily done. In order to determine whether the work was of a high standard or not, it was decided to find out what preparation the teachers had. I will grant at once that the amount and quality of preparation in a college is not an index to the value of the work done by the teacher. I know many college graduates who are absolutely incompetent, when it comes to the teaching of the subjects they have followed in college. I also know teachers in the state of Nebraska, and in other states, who are making a great success of the subjects they are handling, altho they have never studied the subjects in a college. I have about decided that a teacher is born, not made; and yet, a born teacher is much better for education and training along the lines of his special career. If he is not a teacher he will not make a success of teaching, no matter what training he has. If he is a teacher, he will do a great deal better by having splendid training along the lines he is teaching.

Of the schools answering the questions, we find that the teachers having charge of agriculture in the one hundred and five schools teaching agriculture, rank about as follows:

Graduates of a standard college	45
Graduates of a normal school	43
Not a graduate or gave no refcrence	16
The number of men teaching agriculture in the schools	69
The number of women teaching agriculture	36
Those who have studied agriculture in college	17

That is to say that only seventeen of the teachers of agriculture in one hundred and five of the high schools of Nebraska have taken any college training in agriculture.

Studied agriculture in normal schools	12
Studied agriculture in high schools	5

That makes thirty-four of the teachers who have studied agriculture in any way during their preparation for teaching work. Fifty-seven of the teachers

stated that they did not have any agriculture while they were taking their course, aud fourteen did not give any data, so we would presume they did not have any agriculture. This makes seventy one out of a hundred and five who have had no training whatever in the subject, and yet they are teaching it.

There seems to be a feeling on the part of a good many teachers that training along agricultural lines is not at all necessary to the presentation of the subject. I have in mind at the present time one of our superintendents in the state of Nebraska, who teaches the subject of agriculture himself, and says that he has ample training because twenty-five years ago he lived and worked on a farm. Living on a farm and working on a farm does not qualify a person for the presentation of agricultural subjects. It is to be hoped that every teacher of agriculture has lived and worked on a farm at some time in his life, and that he has lived and worked on a farm after he has studied scientific agriculture rather than before, because then he will do things in light of what he has learned.

Agriculture is a deep and broad subject. When you stop to consider that the College of Agriculture in the University of Nebraska has only been established three years, but that at the present time it has twelve separate departments, that each of these departments is in charge of a specialist along that line and that each specialist has several assistants devoting their entire time to the investigation and teaching of certain phases of his subjects, you will realize that there is something more to agriculture than can merely be learned by the ordinary farm life. The science of agriculture is based upon physics, chemistry, botany and geology. These must all be taught before the student is prepared to take up the simplest of agricultural subjects and study them from the college standpoint. Soil fertility presents as complex problems as are presented in any science taught in any university of the country. The same is true with the principles of the feeding of live stock, and of the growing of farm crops.

I do not say that agriculture should not be taught until the teachers of high schools have had a complete course in the College of Agriculture, but I do say, and I firmly believe, that many of the teachers of agriculture are doing more harm to the subject and to the pupils under their direction than they are doing good. I have talked to a number who have no heart in the work, who regard it as a joke, and are teaching it merely because there is nobody else in the school who will teach it, or they happened to be the last added to the staff, and in order to hold their jobs must take the subject. On the other hand, I know teachers, many of them, who have no training in agriculture, but are making a grand success of the subject. But such is the way with all teachers of all subjects.

I have my own views as to what is best for the development of agriculture in the schools of our state, but this is not the place to discuss that subject at length. We may have it developed through a state school, district schools of agriculture, county schools of agriculture, or through our high schools, but by whatever means, the thing we are to consider at the present time, is the course which we can put into our existing high schools. I do not even now wish to advocate what might be termed an agricultural course for our high schools. If I should outline such a course, I would take it for granted that there was a teacher who devoted his entire time to agriculture in the high school and that a certain portion of every year should be used for agricultural work. There are very few schools, if any, ready to do that at the present time. There are schools, however, anxious to offer courses in agriculture, and wondering in what grade it is best to give the course, and what line of work should be followed. I think I can best cover the ground by answering the questions which have been asked me by a few of the principals and superintendents.

1. If you only had one semester in which to give agriculture, where would you put that course? Answer:—If I could only give one semester's work, I would probably give it in the ninth grade. I would prefer to give it in the twelfth after the student has had a sufficient training in chemistry, physics, botany, and geology to give him proper insight into the subject, but if it is impossible for me to give more than one semester's work the chances are that the teacher would not be specially trained in agriculture, and so could not use the fundamental training in these sciences to the best advantage. Another reason for giving it in the ninth grade would be that more pupils would get the subject then, than in the twelfth grade. Quite a proportion of the high school pupils drop out between the ninth and the twelfth grades, and a number of those who do drop out go back to the farm.

2. If you could give two semesters' work in agriculture, but have no teacher trained in the subject, or especially interested in it, when would you give them work? Answer:—I should give the work in the ninth grade. The school which has no teacher interested in the subject might about as well leave the subject out all together, but it may be that he would have interest enough to present some of the interesting things to ninth grade pupils. The chances are that he would not be fit to teach the subject in the twelfth.

3. If you had a competent teacher and one year in which to give the work, where would you put it? Answer:—If I had a competent teacher trained along the lines of agriculture and only one year's work to offer the students, I would make one semester's work in the ninth grade, and one semester's work in the twelfth grade. The first semester's work would be work of a general nature covering the ground in more or less of a practical way. It would be rather an elementary subject, and would be given at that time to give the student who would go back to the farm before they completed their course, something to build on. They could more wisely direct their agricultural reading in the future and it might be a means of getting them interested in some special line of agricultural training. I would give the last semester's work in the twelfth grade to students who were especially interested along agricultural lines. If the teacher is competent, this course would be as hard as any course during the twelfth year. The student would then have most of his chemistry, physics, botany, and geology. Another reason for giving the work in the twelfth grade where one year's work can be given by a good teacher is for the benefit of the high school graduates who expect to teach in rural schools. All of the normal training schools should have a course of this kind. A teacher who expects to teach agriculture needs more training than can be given in one or two semesters at the very first of the course.

4. If you wanted to make a sort of agricultural high school, but could only give two years' work taught by the science teacher, but a teacher who is competent to teach agriculture, where would you put this work? Answer:—I would put one year in the ninth grade and one year in the twelfth, for the same reason as given where two semesters are given by a competent teacher, one semester being in the ninth and the other in the twelfth. This will give those who drop out before the end of the course an elementary course in agriculture. Things can be covered there which do not need to be covered in the twelfth grade, while all of those who finish the course get one good year's work in agriculture built upon the sciences which have been taught during the high school course. It must be remembered that this work must be put on the same grade as any other high school work. It must be thorough and scientific.

5. If you were going to make an agricultural high school with a special teacher in charge, how would you handle the work? Answer:—I would have a special teacher in agriculture especially trained and able to handle that subject, and expect him to handle that subject only. I would have him understand that his work was to teach agriculture. I would give him some work each semester during the four years. I would so shape the course that it would lead the students to a thorough understanding of the principles of agriculture. It would merely mean an agricultural course, leaving out some of the subjects that are now taught to high school students and substituting the agricultural subjects. The student when he completes such a course would probably have finished his education and would go to the farm. If he expects to go ahead with his education in some higher institution, I would prefer that he have more of the literary work in the high school, getting some of the agricultural work that he might become interested in that, then coming to the College of Agriculture to take his degree. But for a finishing school, as the questioner evidently had in mind, I would insist that some agriculture be taught each semested of the high school course, and that it be taught by a competent instructor.

7. What books would you use if you were teaching agriculture in the ninth grade? Answer:—There are no real good books to be used as textbooks for agriculture in the ninth grade. I would look over the list as presented by the various publication houses, and pick out the ones which are elementary, such as Bailey's Principles of Agriculture, but dealing with the subject in a thorough manner. I would do considerable in the way of field excursions and visiting successful farms in the neighbodhood. The best laboratories for ninth grade agriculture are the fields and farms of the community.

8. If you were teaching agriculture in the twelfth grade, what would you use? Answer:—In the twelfth grade agriculture properly taught, I would probably use Warren's Elements of Agriculture, or some similar book. His book is a little too hard for ninth grade work, but is admirable for general work in agriculture in the twelfth. If, however, I had given some general work in the ninth grade, I would probably resort more to bulletins and to special work prepared for the twelfth grade, having on the shelves in the library a number of copies of books of various kinds and assigning readings for those. I think the best course which can be prepared for twelfth grade work would be a course consisting of readings and library work from different books of accepted value.

9. Would you give much laboratory work in teaching agriculture? Answer:—Yes, if I had physics, botany and chemistry laboratories equipped with the proper apparatus. The kind of apparatus to be used can be found in the textbook on soils and field crops.

10. Would you conduct many excursions to adjoining farms? Answer:—Yes, I would take the students to as many of the successful farms of the neighborhood as time permits. If possible, have some of the farmers talk to the students about their methods of carrying on work, and find out if possible the most successful wheat grower in the country and have him describe his methods in detail while at his farm. Do the same with other cereals. Dairy farms and pure bred live stock farms are especially valuable for this kind of work. The technical part of the work and the "reason why" for the various things will probably have to be supplied by the teacher in the class room or after the farm has been left.

11. Would you suggest much live stock judging work for the high school? Answer:—That depends upon the amount of work given. If you have two semesters' work, I would certainly introduce some stock judging. If two years of work, there is no question but what quite a good deal of stock judging work could be used to advantage. In fact the following subjects will be found the most useful for high school work in agriculture: field crops, soils, dairying, animal husbandry. Other subjects can be introduced as time permits and as the ability of the teacher will allow, such as horticulture, farm mechanics, veterinary science, etc.

12. How would you equip your library for high school agriculture? Answer:—First I would procure the standard books on the various phases of agriculture. A list can be secured from the College of Agriculture at Lincoln. I would procure all of the bulletins now in print issued by the Nebraska Station and by the adjoining experiment stations, as Kansas, Iowa, Minnesota, South and North Dakota, Wyoming and Colorado. Other states can be added to the list if desired. I would secure from the United States Department of Agriculture the books and the bulletins which they publish. A few agricultural papers should be added to the list, the best paper in the state and one or two of national importance.

13. Would you attempt to have lectures in agriculture introduced in the high school? Answer:—I certinly would if enough agriculture is given to make it worth while. Lecturers can be secured from the University of Nebraska through the extension department on subjects pertaining to practically any line of work. These can be secured in the University subjects at a nominal cost plus expenses, and in agricultural subjects usually for expenses alone. A series of agricultural lectures is now being arranged by the Agriculturel Extension Department for a number of schools in the state. In this way, aid can be given to the teachers of agriculture, and interesting and important subjects discussed before the students. At the evening meetings the farmers and the town people can be invited to attend.

In closing I wish to offer my services to the teachers of the state of Nebraska. If there is anything I can do personally or through my department to help you in the presentation of the subject, or in any other way, I wish you would not hesitate to call upon me.

ALUMNI TIDINGS

ALUMNI GREET CHANCELLOR

Graduates of the University of Nebraska and former residents of the state now living in Idaho extended a royal welcome to Chancellor Samuel Avery at Boise, November 1. A public reception was held and the address of the visitor was enthusiastically cheered.

Although a surprisingly large number of Nebraskans and alumni of the University of that state were present, the affair was striking on account of the attendance of many representative men and women of Idaho who desired to extend the courtesy of a city and state welcome to Chancellor Avery, and he was received more as a national character than as a Nebraskan.

The noted visitor was royally entertained. There was slight formality in the reception, and it was almost like a "home coming" celebration for the old folks. To the casual observer one of the surprising features was that such a state as Nebraska, familiarly known as "young," should have so many genuine traditions, which one would naturally look to find in a much older commonwealth.

C. A. Sunderlin, president of the alumni, recalled the traditions of the University of Nebraska, rehearsed the doings of the great chancellors, spoke of Manatt, Bessey, Canfield, MacLean and E. Benjamin Andrews (emeritus), and told of Avery's remarkable record as student, professor and chancellor.

George Roberts, in introducing the chancellor, delivered an eloquent address, in which he gave a stirring peroration on intellectual liberty.

E. E. Gillespie and a number of well known Nebraskans assisted in arranging the details of the reception.

Nebraska Alumni of Spokane, Wash., gave a banquet on Nov. 10 in honor of Chancellor Samuel Avery. The Rev. Dr. W. H. Forsyth acted as toastmaster. Others who spoke in addition to the toastmaster and the guest of honor included C. F. Cowan, Rufus Wood, Herbert L. Kimball, Mrs. C. J. Berkey, and Miss Butler. Special music was furnished by Miss Ethel Cowan and Earl Spafford. Those present included: Prof. and Mrs. J. F. Saylor; Mrs. Thomas M. Hyland, Mrs. H. Hand, J. C. Doubt, T. Goodrich, Mr. and Mrs. C. J. Berkey, the Rev. Dr. and Mrs. W. H. Forsyth, J. H. Beddall, Miss Wilson, W. R. Sampson, C. T. Cowan, Miss Helen Dean, Miss Editha Dean, Miss Gertrude Kaye, Miss Ethel Cowan, Herbert L. Kimball, Miss Myra Butler of Cheney, V. A. Day, Mr. and Mrs. L. J. Pospisil, Mr. and Mrs. A. G. Starkey, B. J. Lindsay, A. Steiner, Rufus Woods, Wenatchee; D. Drain, Earl Spafford, Dr. and Mrs. Fulmer, Pullman, and Miss Anna Lytle, Lewiston.

ALUMNI CLUBS.

The organization of county clubs has been progressing rapidly during the last few weeks. Alumni, ex-students and students of the state university have been loyal and industrious in assisting Secretary G. W. Kline, '00, of the state association in his efforts to organize the entire state before the beginning of the new year.

State university graduates in the various counties are asked to identify themselves with their county clubs. It is also urged that ex-students also communicate with the secretaries of these organizations.

Circulars have been sent to the alumni with requests for personal data. These should be forwarded to the secretary at once. The board of directors of the state associations is eager to collect one thousand of the signed pledges before January 1, 1912. If the alumni are prompt in signing these cards the state association can be properly financed and perhaps the life membership plan can be adopted. It has already been determined that dues under the new system will not be as high as under the old plan of annual assessments.

Judge A. W. Field of Lincoln is president of the reorganized alumni association; Mrs. Ada Atkinson of Omaha is vice-president, and N. Z. Snell treasurer.

Thirty of the alumni and former students of the state university have effected an organization at Plattsmouth. F. E. Edgerton of the attorney general's office, gave an address on "The College Man in Politics." Aside from Mr. Edgerton's address there were brief remarks by Dr. T. P. Livingstone and the county superintendent, Miss Mary E. Foster. Superintendent N. C. Abbott of the city schools was elected president and J. T. Richey secretary. Those present were Helen Travis, Calvin Taylor, Helen Robertson, Dr. and Mrs. T. P. Livingstone, Mr. and Mrs. E. H. Wescott, Jessie Robertson, Anna Heisel, Lenora Wolfanger, Blanche Horning, Pearle Staats, Crete Briggs, Mary Foster, Lillian Cole, Florence Dovey, Ed Fricke, J. T. Richey, Grosvenor Dovey, Paul Morgan, Grace Newbranch, Supt. and Mrs. N. C. Abbott. About forty others in Cass county are interested in this organization, among them being Mr. and Mrs. George L. Sheldon. Miss Wolfanger gave several selections on the piano and Mrs. E. W. Wescott sang solos.

During the next month alumni are urgently requested to communicate with Secretary Kline concerning plans for organization in their counties:

Alumni of the state university organized a Polk county club at Stromsburg Monday evening, Nov. 20. Prof. E. A. Boostrom is president, J. N. Norton is vice-president, and Miss Anna Hinterlong is secretary.

Deadwood and Lead alumni have organized an enthusiastic alumni club. B. C. Yates is president and H. K. Hartley is secretary.

MARRIAGES

Albert Edwin Long, '09, and Myrtle Sylvinia Jury were married Oct. 26, 1911, at Tecumseh. They will be at home after Nov. 15 at 1545 Georgia Ave., Omaha.

Edward R. Harvey, '01, and Miss Ethel Powell Smith were married at the home of the bride's parents, Mr. and Mrs. Walter C. Smith, at Toledo, Iowa, Nov. 15. Mr. Harvey is well known in Lincoln. He is now practicing law in Washington. Mr. and Mrs. Harvey will be at home to friends after December 15 at 3427 Thirteenth street, N. W.

Caroline Pauline Seidel, '09, and Leigh D. Ohman of Pilger were married on Aug. 2, 1911, at the home of the bride's parents, 1215 E St., Lincoln. The bride has taught for the last two years at Pilger. The groom is a graduate of Bellevue College, '09. Mr.

and Mrs. Ohman went at once to the new home built by the groom on his farm near Pilger, where they will reside.

Harry P. Letton, '08, was married to Ethel Marie Kirby on November 18, 1911, at the home of the bride's parents, 206 West Grand Ave., Springfield, Ill. After graduation Mr. Letton took a special course in sanitary engineering at the Boston school of technology. He is now inspector of the state water supply for the board of health of New Jersey. Mrs. Letton lived in Lincoln until last spring, when her parents moved to Illinois. Mr. and Mrs. Letton will be at home after Dec. 15, at Trenton, N. J.

PERSONAL

S. W. Pinkerton, '98, and Mrs. S. W. Pinkerton, '99, now reside at 1430 Capitol Ave., St. Paul, Minn. In notifying the Journal of their change of address Mr. Pinkerton takes occasion to speak of the increasing interest to alumni of the personal news items in the alumni column.

L. S. Storrs, '90, has changed his address from Springfield, Mass., to New Haven, Conn., and is connected with The Connecticut Company.

Dr. Hubbard Linley, '93, died July 14, 1911.

R. G. Hiltner, '94, visited friends in Lincoln recently. He was on his way from Denver to Washington, D. C., where he will remain for a month.

Emil Podlesak, '96, is located at Tiffin, Ohio, where he is manager for the Webster Electric company.

Evan T. Sage, '02, who took his A. M. ('04) and Ph. D. ('08) at the University of Chicago, is now instructor in Latin and Greek, University of Washington. Mr. Sage was at one time instructor at the University of Idaho. He also held a fellowship at the University of Chicago while taking graduate work there.

Mary Brayton Hatch, '02, now resides at Alderton, Wash.

Edwin L. Tobie, '02, is serving his second year as pastor of the Methodist Episcopal church at Collison, Ill.

A. R. Swoboda, '03, is now located at 123 West 93d St., New York City. We were unable to ascertain his occupation.

R. C. Campbell, '04, is practicing medicine in Moberly, Mo.

Elizabeth King, '04, is teaching German in the Wayne normal school.

Mortimer J. Brown, '05, is now research chemist for the Niagara Electro Chemical company. His address is 23 C St., Niagara Falls, N. Y.

Mary G. Barney, '06, who formerly taught school at Fayette, Idaho, is now Mrs. G. W. White and resides at Gregory, So. Dak.

Ernst A. Bessey, '06, is professor of botany in the Michigan agricultural college. He lives at East Lansing, Mich.

Thomas B. Davis, '06, died on Nov. 3, 1911, at his home at Forest City, Ark. He was ill for only about four days with appendicitis. Mr. Davis was president and treasurer of the Arkansas Farms Co., with headquarters at Little Rock, and formerly was instructor in mechanical drawing under Professor Chatburn. After leaving the university he became chief engineer with the Cleveland Crane and Engineering Co., of Wickliffe, Ohio.

C. G. Bates, '07, forest assistant, U. S. forest service, has just published a government bulletin called "Windbreaks; Their Influence and Value." The last number of "Science" gives the article a favorable review.

B. E. Debler, '07, until recently engaged on irrigation work in Colorado and Nebraska, is now employed in investigating possible hydro-electric development in the eastern part of the Ozark mountains. His address is Alton, Mo.

Dean E. Winchester, '07, is assistant geologist in the United States geological survey at Washington, D. C.

Cooper M. Dunn, '08, who was formerly at Chicago, Ill., is now located at Indianapolis, Ind. He is a member of the firm of Hobbs & Dunn, landscape architects and engineers, with their office at 921 State Life building.

Alice M. Purinton, '08, who is an assistant in the bureau of standards, Washington, D. C., was in Lincoln recently.

James D. Nethery, '08, is farming near Debeque, Colorado.

Cecilia Foster, '09, formerly a teacher in the O'Neill high school, has accepted the principalship in the high school at West Point.

E. M. Buol, '09, now located at Portland, Oregon, visited the University recently. Mr. Buol is devoting his energies mainly to the engineering of logging roads and topographical surveys of properties.

Erwin Hopt, '09, is assistant professor of agronomy at the state farm.

J. C. Ketridge, '09, has sent word to Dr. Bessey that he will be in Lincoln soon to take graduate work for an advanced degree. Mr. Ketridge is now in the U. S. forestry service in northern Montana.

Emma Perry, '09, is assistant high school principal at Bertrand.

Alice E. York, '09, is teaching in the schools at Seattle, Wash. She was formerly professor of Latin at Bellevue college, Bellevue, Nebr.

C. A. Reimers, '09, is now underground transitman for the Homestake Mining company at Lead, S. D.

George H. Bischof, '10, is temporarily managing a hardware store at Nebraska City, which his father,

George W. White, '10, is engaged in the real estate business at Gregory, So. Dak.

Charles A. Bennett, '11, is with the Omaha Electric Power Co., 2117 Maple St., Omaha.

Harry N. Cain, '11, is a railway clerk with the Mo. P. R. R. and is located at Falls City.

Ralph G. Coad, '11, is a student in the law school of Columbia university, 531 West 135, New York City,

William O. Forman, '11, is in charge of the drafting room for the Burlington Railway company at Havelock.

Jessie G. Greene, '11, is teaching in the high school at Falls City.

Henry C. Hathaway, '11, is taking the law course at the University of Nebraska.

W. C. Hutchison, '11, is with the Bell Telephone Co. and his address is 106 No. 25th St., Omaha.

William A. Mlek, '11, is drafting for the Omaha Structural Steel Co., 2318 Douglas St., Omaha.

Roy R. Monbeck, '11, holds a position in the topographic branch of the U. S. geological survey. His home is at Auburn, Nebr.

C. O. Smith, '11, is with the Omaha & Council Bluffs Street Railway company, Omaha.

Otto F. Swenson, '11, is taking post graduate work in forestry at the University of Nebraska.

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ALUMNI EDITION

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Charles Edwin Bessey, Ph. D., LL. D.

President of the American Association for the Advancement of Science.

CHARLES EDWIN BESSEY

The New President of the American Association for the Advancement of Science

After an absence of eight years the American Association for the Advancement of Science returns to Washington for its annual meeting. In 1903 the presiding officer was the chemist, Ira Remsen, who still guides with consummate skill the fortunes of the Johns Hopkins University. At the present meeting a botanist, who for forty years has faithfully attended the gatherings of the association, will preside over its proceedings.

Charles Edwin Bessey was born in Milton Township, Wayne County, Ohio, on May 21st, 1845. His ancestry on his father's side is of French origin; for the Besses, as the name was formerly written, were Huguenots who fled from their native country to England and then, about the middle of the eighteenth century, Jacob Bessey came to America, settling near Doylestown, in Pennsylvania. In 1832 his grandson Adnah moved with his parents to Wayne County, Ohio, where later he married Margaret Ellenberger, of German descent, and there the son was born.

Young Bessey received his earliest education in the public schools of Ohio, and after preparing for college in the academies in Seville and Canaan, he entered the Michigan State Agricultural College at Lansing, where he was graduated in 1869 with the degree of Bachelor of Science, and where three years later he received a Master's degree. His intention on entering college was to become an engineer, but he was advised to specialize in botany, which advice he reluctantly accepted. After much reflection, on so informing the president, he was told: "Well, Bessey, I am glad of it, but you'll never be rich," and then a moment later, "Yes, I am glad of it, but you'll never be rich." After graduation he was able to study his chosen specialty at Harvard, where he was fortunate in coming under the influence of Asa Gray, from whom he acquired the foundations of the knowledge of systematic botany, especially in its philosophical aspect.

Preferment in those days was naturally in the direction of teaching and in 1870 he was called to the chair of botany in the Agricultural College of Iowa, where he continued for fifteen years, serving also as acting president during the year 1882. He accepted a call to a similar charge in the University of Nebraska in 1884, where he has since remained, being also head of the department. During 1888-1891 he was acting chancellor of the University, and again held this high office during 1899-1900 and 1907. He was dean of the Industrial College of the University of Nebraska during 1884-1888 and again since 1895; also during 1888-1891 he was dean of the College of Literature, Science and Arts of that University.

While botany has been his favorite study, it has not been his only interest; for in Iowa he began at once to write for the agricultural papers, telling the people how to plant and what to plant; telling them about weeds and grasses; telling them also about insects and their bad habits; for entomology was one of his studies at that time. He joined the Iowa State Horticultural Society in 1870 and read his first paper on harmful insects, and took part in the first Farmers' Institutes held in Iowa during the winter of 1870-1871. On moving to Nebraska he was equally interested and at once began to collect information on the grasses of the State, reading a paper on the subject before the Farmers' Alliance; also presenting papers before such organizations as the Fine Stockbreeders' Association, Dairymen's Association, Beekeepers' Association, State Agricultural Association, and the State Teachers' Association.

His literary activity has been very great; for besides many contributions to technical journals and papers read before scientific organizations, he was for years botanical editor of the American Naturalist and has held a similar relation to Science for many years. He was the editor of the botanical contributions, most of which he wrote himself, that appeared in the later editions of the New Universal Cyclopedia. Also he edited McNab's "Morphology, Physiology, and Classification of Plants" (1881). His principal works in book form are: Geography of Iowa (1876); Botany for High Schools and Colleges (1880); The Essentials of Botany (1884); Elementary Botanical Exercises (1892); Elementary Botany (1904); Plant Migration Studies (1905), and Synopsis of Plant Phyla (1907).

In honors, he has received elections to the Phi Beta Kappa and Sigma Xi societies, organizations in which membership is restricted to those who have done something. The degree of Ph.D. was conferred on him by the University of Iowa in 1878 and that of LL.D. from Iowa College in 1898. It may also be mentioned that he is a trustee of Doane College, and he is a member of the Schoolmasters' Club.

Professor Bessey is a member of many scientific and educational societies, as shown by the following list of organizations, in all of which he has been a prominent officer: He is a life member of the Botanical Society of America and was its president in 1896-1897; also he is a member of the National Educational Association, serving it as vice-president in 1896; and he is a member of the American Microscopical Society, of which he was president in 1902. His connection with the American Association for the Advancement of Science began with his election to membership at the Dubuque meeting in 1872. He was advanced to the grade of fellow in 1880, and has served the Section of Botany as chairman with the rank of vice-president, at the meetings held in 1890, 1902, and 1908. His long and valued connection with this foremost scientific organization in the United States gained for him the well-deserved recognition of an election to its presidency at the meeting held in Minneapolis last December.—Marcus Benjamin, Ph. D., in Scientific American.

DEAN BESSEY HONORED

A special convocation was held Tuesday, January 9, in recognition of the honor to Dean Bessey and the University of Nebraska by his services as president of the American Association for the Advancement of Science. Dr. Bessey was elected to the position in December, 1910. His duties began at once, and he presided over the session of 1911. In 1912 he will introduce his successor and give the president's annual address.

At the special convocation, addresses were made by Cancellor Avery, Regents Haller and Allen, and Dean Davis. The attendance and enthusiasm were significant of the high esteem in which Dean Bessey is held by students and faculty.

An Appreciation

By Hon. F. L. Haller

As representative of the Board of Regents I am here to add a tribute of honor and of love to one who

for half a century or more has been opening the eyes of thousands of his fellow-men to the beautiful in nature, and who has bestowed upon generations of young men and women that priceless heritage, a love of Nature and an appreciation of the dignity and worth of scholarship and scientific research.

In Dean Bessey we have a splendid specimen of the type of man that universities and associations of science love to honor. Not only is he an authority in his chosen branch of science, but he is one who finds his true vocation in transmitting to others both his knowledge of science and, what is of infinitely more value, his great love of Nature.

In this commercial age, when not only hardening of the arteries, but of the heart itself brings untimely death, he is himself a living example of perennial youth—the reward that comes from close communion with Nature. He affords an example of that which should accompany old age: as honor, love, obedience and troups of friends.

It is meet and right that the student body should by the number present here do honor to ripe scholarship, scientific attainment and honored manhood as here represented in the beloved Dean Bessey. It is not brick and mortar, nor fabulous endowment, nor thousands of students, nor victorious athletics that bring glory and renown to our universities, but ripe scholarship and scientific attainments such as are here exemplified.

Only to such a degree as a university inspires its students with ambition to excel in scientific research or in scholarship is that university a success. Unfortunately, there has grown up in recent years a tendency to magnify the by-products of university life, such as athletics, social functions and fraternity segregation. This is being carried to such an extent as bids fair to become a serious menace to the real aims of higher education in our great universities. This tendency to exalt the incidentals is interfering with the great work of higher education, for which purpose alone the state is justified in levying taxes for the maintenance of universities, and is bringing merited rebuke and caustic criticism upon college life from thinking men and women everywhere. It is a reflection upon a student's intelligence and upon his honesty as well to spend his time and his father's money upon the non-essentials of college life, and it would seem to indicate, if not a weak mind, at least an immature one.

An occasion of this kind revives the true spirit of university tradition—to show honor and respect to those eminent in the advancement of learning, and to kindle the ambition of every student to follow in the paths made famous by such men as Dean Bessey. If attendance at the universities could be confined to those who work their way through college, eliminating those who make their fathers work their way through college, if going to college meant great personal sacrifice, if it meant borrowing money with an honest determination to repay the loan, then there would be no danger of losing the true university spirit that has come to us through a thousand years or more. But the ever-increasing well-to-do class who send their pampered darlings to universities that they may be exposed to higher education makes the problem of preserving the true spirit of learning one worth the serious attention not only of the faculty, but of the student body itself.

Universities are not maintained by taxation for the purpose of teaching the business of money making, but are established with the design to make better, stronger, wiser and happier men and women. That university fails utterly where the love for learning and appreciation and respect for scholarship and research are wanting on the part of its graduates. The man or woman who graduates from any university without acquiring the reading habit, the ability to do concentrated thinking, or who has not acquired through the study of natural science the love of nature is not a son of his Alma Mater, but of his Mater Dolorosa.

AGRICULTURAL EDUCATION

By Chancellor Avery

(Address delivered before the Nebraska Rural Life Commission and the Nebraska Farmers' Congress, Omaha, Nebraska, January 12, 1912.)

Your program committee has asked me to repeat on this occasion some things that I have said at other times on the relation of the University to the state at large, dealing particularly with those phases of its activity which are somewhat apart from the usual teaching duties of the traditional college; and especially emphasizing what the University can do along the line of agricultural education and agricultural leadership. It is a most agreeable, I will not say duty, but rather opportunity, that presents itself to me as the result of your committee's action.

Having lived in Nebraska the greater part of my life, I have witnessed the development of the state from the sod house era to its present condition of comfort and culture. I have seen the bare prairies converted into splendid farms, the squalid towns of the frontier built up into beautiful cities. Not less remarkable than our economic and industrial progress has been the development of our educational system. Within my own recollection our entire high-school system, outside of one or two cities, has been developed, until now we have over one hundred four-year high schools, and approximately three hundred giving three-year courses. All but one of the denominational colleges, and all but one of the normal schools, have been founded within the same period. Perhaps most remarkable of all has been the development of the State University, which, beginning as a struggling institution of one or two hundred students, has become one of America's great educational institutions. Great as the educational progress of the last forty years has been, however, the system is not yet complete. We are on the threshold of a new educational era. Our predecessors have done the best that they could with the means at their disposal. We must continue their work in their spirit, though not necessarily placing the chief emphasis where they placed it. In this new era of educational expansion, the dominant feature will be the development of agricultural and other lines of industrial education. It seems to be recognized by people of all shades of opinion that in this work of organizing and developing agricultural education the University shall assume a position of leadership. An institution is in a fortunate position when it can undertake a great work of this kind with the unanimous support of the people of the state. The University is becoming as broad as the state, and its influence is pervading the state, while at the same time it is to a greater degree than ever before reflecting the sentiment of the state. For the greatest good of the agricultural

development of Nebraska, then, it is necessary that those in immediate charge of the University should take a statesmanlike view of the future, and endeavor to decide upon a policy of agricultural education which will secure the greatest possible efficiency in proportion to the expense involved. This, I take it, is the desire of every true friend of the University, and of every true friend of the state's agricultural interests.

When Abraham Lincoln signed the first Morrill Bill, during the darkest days of the Civil War, the beginning was made which through the slow development of years has given us our splendid system of higher agricultural education. Starting as rather low grade institutions, in an academic sense, the "land-grant colleges" have made slow but steady progress, until most of them now offer courses of study, which in both practical and cultural value, compare favorably with those given in the older institutions of the country. Particularly has this been true where their founders have wisely made them colleges of state universities, and not separate institutions. Now and then we hear a little talk in favor of segregating an agricultural college from the university of which it is a part. This, however, is a voice from the tombs. No state has ever committed this folly, while the tendency of the times is toward a closer unity between the agricultural college and other state institutions of higher learning. Vermont, Kentucky, and Illinois have united their agricultural institutions with their state universities, or developed them into state universities. Just now Oregon is struggling to effect a union, while many of the states have endeavored to secure closer unity by placing all institutions of higher education under the same board of control. The progress of today is toward greater concentration and unity in higher education; and future changes must be for the purpose of unifying, and not of segregating. All this is right and proper, since the particular work of the agricultural college is to train agricultural leaders, who need the breadth which the atmosphere of a great institution of higher learning, where all professions meet on the same footing, alone can give. The college must turn out teachers, experiment station workers, agricultural newspaper men, men in government service, leaders in farm economics, agricultural thinkers and statesmen; in short, a type of leaders who will serve the farmer, as distinguished from politicians and others whose purpose is to cater to the farmer. For this work we have plenty of agricultural colleges and all the educational machinery we need. What is needed in this field is a more liberal support of the institutions we have, rather than the founding of new ones. Our future expansion should and must come in secondary schools; and as I have observed, it seems to be the general consensus of opinion that in this newer educational movement the University must furnish inspiration and leadership.

Although my business in life concerns itself primarily with higher education, yet I feel that there is some justice in the assertion that our American system of education is likely to become topheavy. There is no danger that we will do too much for the college, but there is danger that we may neglect the work of the grades below it. We must do more than we are now doing for both. The average Nebraska farmer of the future, the man whose business it will be to maintain 160 acres of land at the highest possible state of efficiency, and to produce the largest crops at the smallest expenditure of labor and the least loss of soil fertility,—the man who will manage his land to a very considerable extent with his own labor, will be the product, not of the agricultural college, but of the agricultural school. The agricultural school is the trade school, if you please, where the American boy will learn his trade as a farmer, along with his duties and opportunities as a citizen. As we have pointed out, the college has won its place in our educational system as an institution for the training of the agricultural expert. The present problem is to devise a plan which will make an efficient farmer and at the same time a well trained and intelligent citizen out of the boy who has neither time nor inclination for college study. Here are two fields whose needs are distinct; and our first task has been accomplished if we now have a clear recognition and understanding of the problem that confronts us.

Assuming, then, that the need of the situation is so evident as to require no discussion, the question naturally arises, how shall we meet it? What advice shall we give to local school boards, to state legislators, and to congressmen? In what type of school shall agricultural instruction be given? Shall we advocate federal schools, state schools, schools part state and part federal, local schools, or schools part state and part local? In deciding these questions, we should first of all eliminate our own personal prejudices. Someone has well said that the politician wishes to establish new institutions, in order to catch the favor of local communities. The educator, on the other hand, naturally always wishes to develop existing institutions to the highest possible reputation and efficiency, perhaps without much regard for the needs of the people at large. He always wishes to increase the candle-power of his own lamp of learning, and is not anxious to divide his current of support with a series of scattered luminaries. The man with the statesman's point of view, however, must consider the problem of getting the best results, regardless of local pride on the one hand, or of educational jealousy on the other.

In order to determine to some extent what other states are doing or planning to do, I had letters addressed to officials in all the states in the Union asking for information and suggestions. The replies show that the policies pursued are far from uniform, and that the details of each plan differ widely from those of any other. The ablest and most careful thinkers on the subject, however, divide into two rather distinct groups. One would have a number of separate agricultural schools controlled by the state, and assisted, if possible, by federal subsidies. The advocates of this system would have at least one such institution in every congressional district. In general, they agree that pupils should be admitted from the country school and the grades below the high school; that there should be an articulation with the college sufficiently close to allow the graduates to go on and take a college course, if desirable; and that the courses should be so arranged as to turn out finely trained, efficient country men and women. Schools organized along these lines are found in Arkansas, Georgia, Minnesota, Oklahoma, and Wisconsin. Our School of Agriculture at the University Farm would be such a school were it not connected with an experiment station and an agricultural college. Such schools as this group advocates, would be nearly like the new school as planned

at Curtis, which is to be strictly a school of less than college rank, without having instruction given by University professors.

The argument in favor of this type of separate agricultural school is that only through the organization of institutions under state control, can an effective education for the prospective farmer be provided for. Even Director True of the United States Office of Experiment Stations, who holds many of the views of the opposite school of thought, favors a limited number of such schools, in order to set the pace in agricultural education, and fix agricultural standards, for the rest of the state. The more extreme members of this group maintain that we cannot have the true agricultural spirit in the typical high schools, since in such institutions agriculture will be taught by college and normal school graduates who have no real interest in it. They point to the unsatisfactory condition of agriculture in our public schools; and argue that even if agriculture is generally introduced into the high schools it will soon have as little practical value as some of the other sciences now found in the high school curriculum. The main source of the trouble, they say, is that the spirit of the high school is likely to be against the farm, and not in favor of the farm. This feeling is expressed by Dean Vernon of Florida, who says: "The high-school men have shown no sympathy for agriculture. I consider secondary schools for agriculture, with best environment and manned by those trained for agriculture and therefore in sympathy with the rural people, the most pressing present need. These schools must be farmers' schools, not city schools with agriculture tacked on and under unsympathetic management."

On the other hand, those who favor agricultural sections in existing high schools argue as follows: No system of education will really meet present agricultural needs which does not permit the pupil to spend his nights at home, or at least go there at the end of the school week. Therefore, if the school is much beyond the ordinary driving distance, if the pupil must go out of his home county and among strangers, he might go to a central plant, maintained for the whole state, as conveniently as to one of a scattered series of agricultural schools. The claim is further made that the separate agricultural school must inevitably become somewhat akin to the peasants' schools of Europe; that it will become a class school, and thereby segregate the former and narrow his horizon. Another argument is that separate schools would be an endless source of jobbery and log-rolling in the legislature; and that, as Dean Bailey of Cornell University has put it, a far better way to develop local pride and initiative would be to make the locality itself responsible for the success of the agricultural section installed in its own high school. It is said, also, that such separate schools would be an anomaly in our educational system; that they would injure the agricultural college by aspiring to be colleges; and that the state might be filled with struggling, low-grade institutions, giving cheap degrees to future doctors, lawyers and insurance agents, instead of strong schools training efficient, self-reliant farmers. On the score of economy, it is urged by such men as Dean Davenport of Illinois, that the main part of any school curriculum must be general. While we may call these schools agricultural schools, the future farmer must be taught how to measure corn in the crib and hay in the stack, and do rough surveying for tile drainage. This is mathematics, not agriculture. He must be taught how to write a correct letter giving, for instance, an accurate description of the merits of the seed corn he offers for sale. This is primarily English, not agricultural training. For his highest good he must have a definite knowledge of farm economics. This is political economy and sociology, not agriculture. If he would maintain the fertility of his soil, he must know something of chemistry and physics. This is applied science, not pure agriculture. This argument in brief, then, is that since over half of his education must be along general lines, it is a waste to duplicate this work in separate schools. Let us take, for instance, the situation at Curtis. The state agricultural school there must teach nearly everything which the Curtis High School should teach, plus high grade agriculture. In view of this fact, I have urged the local authorities at Curtis to try to make some arrangement with the state school whereby their pupils of high school grade may be taught in the state school of agriculture, thus avoiding the necessity of building up a separate general high school in the town. President Snyder of the Michigan College of Agriculture summarizes the attitude of this entire school of thought when he says, "Give the agriculture in connection with the students' high school work and they will not be drawn away from the farm and will at the same time receive a degree of culture and general training which it is not possible to secure in a separate agricultural school."

This, then, is the situation, as I see it, in Nebraska: On the one hand, we can go on multiplying separate, special agricultural schools of the general type of the one at Curtis. If the resources of the state will permit, we can place one in each county. At an estimated cost of $100,000 for the first building and equipment of each school, it would cost the state $10,000,000 to establish such a system, and a biennial expense of $5,000,000 could be absorbed in maintenance with no appearance of extravagance in any one spot.

On the other hand, few school districts can afford to install efficient agricultural departments without exceeding the present tax limit. Therefore agricultural education in existing high schools must be inefficient unless additional support can be obtained from some source or other.

We must devise a system for Nebraska which will bring agricultural instruction close to the pupil, and develop local spirit and responsibility, and not at the same time financially burden either the locality or the state. For the adoption of such a system of secondary agricultural education, it seems to me that Nebraska's course is rather plain. We have a university centrally located, so far as railroad connections are concerned. Let this be amply supported in all its varied activities and maintain its position of educational leadership, as well in the newer movement we are discussing as in the school system already established. We have four normal schools, one in the southeast, one in the northeast, one in the northwest, and one in the central-west. Let these receive better support and let a strong agricultural department be maintained in each of these institutions. We are to have the new school at Curtis in the southwest. Let this and the central school of agriculture at Lincoln be developed as models in secondary agricultural training. To the courses of study of these two secondary schools let certain

normal training courses be added, which will enable their graduates to carry the work of agricultural education into the rural schools. In addition to this, these two types of agricultural high schools can set the pace in agriculture and fix agricultural standards for the general high schools of the state. Then let the next legislature pass a bill granting liberal subsidies to those high schools that are actually making a beginning in efficient agricultural instruction. Blair High School has already installed a two-year course in agriculture. The city of Tecumseh has secured a tract of land which will be exceedingly valuable for this purpose. Holdrege is taking steps in the same direction. Valentine's high school might easily make use of our experimental substation there for demonstration purposes. The only expense to the state would be the subsidy, for which we already have a precedent in our grants for normal training work. Definite standards should be set, such as a suitable tract of land, suitable equipment, and competent instruction. The maintenance of these would be required in order to receive any state aid. The principal of the University School of Agriculture might be made supervisor of agricultural instruction in the subsidized high schools, and no high school be permitted to draw state money without his certifying to the state superintendent in regard to the satisfactory character of its work.

It is my judgment that such legislation would not form a mere oasis here and there in our agricultural desert, but would gradually bring about the irrigation of the whole state. I would have the law flexible enough, however, to allow the subsidy coming to school districts in cities to be used in the establishment of trade schools if their boards of education so desired. In other words, the purpose of the plan would be to serve the industrial needs ,of the people and the state; and as agriculture is by far the most important industry in Nebraska, it would naturally receive a very large proportion of the money granted. The whole design could be worked out without involving the creation of a single new executive office, and with practically no expense of administration. The plan would have the merit of developing agricultural high schools in which the locality itself could take pride, and for which it would be responsible. It would give the future farmer practical training and general education at the same time. It would inject no new factor into our educational system. No requests would come to the legislature except for the lump sum, which would be equitably distributed, and in which all portions of the state would participate. In time it would make a thorough, practical, usable agricultural education as easy to obtain as a high school education is today. Regent Coupland, of the University, has wisely said that in Europe scientific agriculture is secured through the education of overseers, as it were, who use the common people as tools. If you have a sufficiently intelligent class of landlords, and a sufficiently subservient class of tenants, it does not make so much difference, as far as mere production of crops is concerned, whether the tenants are well educated or not. We in America, however, do not have and do not wish European conditions. We must, therefore, train the farmers themselves.

When one sees the need in Nebraska, and throughout the entire West, for that matter, of a greater agricultural efficiency, he is impressed with the urgency of the work we must undertake. The rather careful study that I have made of Nebraska's climatic conditions, rainfall, soil, and all the other features that we must take into consideration, convinces me that the state could easily enough support four millions of people on a good American standard of living. It could support eight millions if it were made as productive as similar sections of agricultural Europe. The time may come when our population will reach one of these figures, but even with our present population, the problem of agricultural efficiency is one of the most vital ones our people will have to solve. The object to be attained is worth our most careful thought and consideration.

If the suggestions I have made will in any way help to solve this problem I shall be very glad; and if wiser plans can be formulated by others, I shall not want to insist, through any spirit of pride, that Nebraska should follow the suggestions I have just outlined.

In conclusion, I would urge upon this assembly that all the educational activities of the state need better support. The public schools, the denominational colleges, the normal schools, and the various colleges of the University should receive the support of the farmers and of all the other classes of our state. Agricultural efficiency is quite as important to the dwellers in our cities as it is to the dwellers in the country. Legal and medical knowledge, engineering, and all the other phases of culture which are the province of the modern university are quite as important to those who dwell upon the land as to any other class. We are not developing any of these primarily for the advantage of those who receive education, but for the advantage that will come to the state as a whole through the increased efficiency of those who are the recipients of the state's bounty. I therefore plead that all of those who wish well for our state may lay aside any feeling of prejudice or jealousy, and work for the educational development of the state as a whole.

THE SUPERINTENDENCE MEETING

St. Louis, February 27-29

Have you thought to procure accommodation for the Superintendence meeting which is to be held in St. Louis, February 27-29, or including the meetings of the auxiliary Departments from the morning of February the 26th to the evening of the 29th? If not you should do so at once in order to be with the crowd and receive the most benefit from the trip. When you consider the number and strength of the men and women who are planning to attend the meeting from Nebraska you will appreciate the opportunity of being associated with them.

The Department of Superintendence is considered by many of the best school men to be more stimulating and vital to the teaching profession than the N. E. A. itself. That is the reason why that two of the other strong departments of the N. E. A. have this year decided to meet with the Department of Superintendence. Hence the meeting this year will be the best in its history, besides it is to be held nearer Nebraska than usually happens. All teachers and superintendents who generally attend these meetings will be found at St. Louis, but many more should attend this year to get in touch with the best things in the profession. Every wide-awake school system of the State should have a representative there who could bring back some of the inspiration and help.

The teachers of Nebraska are planning to go together in special coaches over the Burlington. One to leave Lincoln February 25th, 2:10 p. m., the other to leave Lincoln February 26th, 2:10 p. m.; both trains going via Omaha, leaving Omaha 4:30 p. m. and arriving in St. Louis the next morning 7:10 a. m. From Lincoln the fare going is $11.15, plus $3 for standard sleeper (lower berth); returning fare, $8.05 (certificate plan) plus $3 sleeper; total, $25.20 Hotel accommodations in St. Louis are ample and reasonable.

Among those who have already manifested their intention of attending the meeting are: Chas. Fordyce, A. A. Reed, W. L. Stephens, Geo. L. Towne, W. K. Fowler, V. G. Mays, Mr. and Mrs. F. C. Williams, A. L. McLaughlin, State Superintendent Delzall, of Lincoln; J. R. Fulk, Seward; Clinton Barr, Hastings; A. H. Waterhouse, Fremont; C. N. Walton, Wahoo; N. M. Graham, South Omaha; S. H. Martin, Broken Bow; E. U. Graff, W. A. Yoder, Omaha; V. L. Strickland, Tecumseh; A. E. Fisher Aurora; E. J. Bodwell, Beatrice; A. O. Thomas, Kearney; D. W. Hayes, E. L. Rouse, Peru.

Any others who contemplate attending should notify Dr. G. W. A. Luckey, Lincoln.

NEW COURSE IN THE SCHOOL OF AGRICULTURE

Beginning with the next school year, Normal Training will be added to the course of study in the School of Agriculture. The course as a whole has been revised and the work of the Senior year of the four years' course will hereafter consist of three groups The Technical, The University Preparatory, and The Normal Training. The work of the first three years will all be required work—the technical and cultural subjects blended in the course in about the same proportion as heretofore.

Students taking the University Preparatory Group will be given opportunity to complete their University preparation without so much emphasis on the more advanced phases of scientific agriculture, inasmuch as these phases of the subject will be thoroughly taken up in the University. Students completing this group enter the College of Agriculture without examination.

The Technical Group will consist almost wholly of advanced agricultural subjects, omitting many of the subjects usually given in our high school preparatory courses. This course is intended for the men and women who go directly from the school to farms and farm homes. The great majority of the students of the school are now, and will probably continue to be of this class, for the School of Agriculture is in its purpose a technical finishing school, holding as its great aim the training of men and women for useful lives on the farm.

The Normal Group will consist of the usual Normal training subjects—Pedagogy, Reviews of the common branches, and American History. All the requirements of the High School Normal Training law have been met, and the School of Agriculture will be recognized by the State Superintendent as one of the secondary schools of the state regularly qualified by law to train beginning teachers. Those who complete the group will receive a county certificate and will be qualified to teach in the rural and village schools.

Normal Training has been added to the course of study because the young teachers who go into our rural schools, and village schools in rural communities, should all be thoroughly equipped to handle agricultural subjects and in earnest sympathy with rural life and rural conditions. This is not the case at present. The graduates of our Normal Training High Schools at present are products of our overemphasized academic course, with a mere smattering of agricultural knowledge—gained from the one semester of so-called agricultural instruction required by law in our normal training high schools. Although normal training graduates as a whole have greatly increased the efficiency of the rural schools, because of their knowledge of Pedagogy and Methods, nevertheless the fact remains that they are peculiarly unfitted to meet the real needs of rural communities because they have no real training in a course of study suited to rural conditions, and their sympathies and their ideals are born of the town rather than of the country. Every young teacher who begins her career in the rural school should first have a broad understanding of and sympathy with farm life; she should be steeped in a course of study that is adapted to farm conditions, and she should conceive, to some extent at least, of a course of study for her own school founded upon practical agriculture and Home Economics, instead of upon a course merely preparatory for a high school. This means that every normal training high school should establish a **real course** in agriculture, consisting of at least ten hours carried for two years. It means that every normal trained graduate should be required to take this course in addition to the work now done in professional training. To bring this about in all our high schools will accomplish one of the great ends of agricultural education, namely, the supplying of teachers to our rural schools who can really teach children for and toward successful farm life, instead of away from it.

The University School of Agriculture takes a step in this direction in establishing Normal Training. Its graduates are from the farm. They have genuinely scientific farm training. To the farm they should return—all of them as leaders—some of them as teachers. But the School of Agriculture can never hope to supply more than a very small fraction of the great army of these leaders and teachers. The real burden is upon the high schools. It is for them to see this need and prepare to meet it. They have the Normal Training; the next step is to add the course in Agriculture and Home Economics.

FRED M. HUNTER.

EDUCATIONAL THEORY AND PRACTICE

By Dean Fordyce

IV. The Apperceptive Step in the Teaching Process.

The number of different teaching activities that go to make up a well-conducted class period varies with the subject taught, the stage of progress, the capacity of the pupils to grasp the material offered, the aim of the instructor, etc.; there are, however, three aspects of the teaching process ever to be kept in the fringe of the teacher's consciousness—a proper disposition of the material of the lesson, set apart for the class hour, the relation of this material to the knowledge already possessed by the class, and, finally, its relation to the facts subsequently to be acquired by the pupil.

The instructional activities should open with a review of the facts previously acquired; this step in teaching is known as apperception. It is the process

by which new knowledge is interpreted in terms of the familiar or the known. There are several reasons why this step is fundamental to good teaching. First, each lesson assigned is logically the outgrowth of the problems of the previous lesson. If the former lesson has been wisely conducted, there are left unanswered many problems whose solution has been deferred for subsequent study. This gives the work of each class period an organic connection with that of the previous. Secondly, new facts are learned in the light of those previously acquired; learning is putting new thought and feelings into those already in the mind. Thirdly, this recall of facts already considered is the best means of insuring their organization in the mind and of fixing their permanency as a matter of memory. These frequent recalls constitute the only valuable type of review, namely, those in which facts already studied are repeated from a new viewpoint and always in the light of additional information. The old-fashioned review in which subject-matter is repeated is the most fruitful source of the deadening of interest and attention. The ordinary type of drill should be discouraged for the same reason, for drill without attention is not only a waste of time, but it actually makes repellent subject-matter otherwise enjoyable. Dr. Strayer in his excellent text, A Brief Course in the Teaching Process, emphasizes this aspect of the review by saying that: "A review should mean a new view, a placing of facts in their true relationship. It should mean a clearer view of the topic or the subject which the children have been studying. It avails little to go over the ground that has already been covered more rapidly. The use that we can make of a fact depends upon our ability to relate it logically to other facts. The step taken in advance today can be properly appreciated only when it is seen in relation to that which has gone before, and the work of the past week or month will, in turn, by this additional effort be seen in truer perspective."

The amount of time required for this apperceptive step varies; as a rule, several minutes should be given to it, and in those cases where the knowledge of the former assignment is hazy or inexact, it may not be too much to give the major part of the class hour.

A CHANCE FOR TEACHERS TO HELP.

Seed Corn in the State Is Very Poor—Nebraska Has the Poorest Seed Corn in Years.

Tests on seed corn in the state of Nebraska conducted at Institutes and Short Courses and examinations made by seed corn experts sent out by the University of Nebraska show that the seed corn is very poor and that everybody who is concerned with Nebraska crops should use every effort to get the farmers interested in testing.

Teachers of Agriculture in the schools in our state should certainly call the attention of the students to this. Where there are no agricultural courses offered in the schools, every student in the schools should be told of the condition which exists and should help get the farmers in the community interested in making tests.

Full instructions for testing seed corn will be sent free of charge by the Nebraska Experiment Station.

UNIVERSITY EXTENSION CORRESPONDENCE COURSE IN SOILS

The first lesson and experiments of the correspondence course in soils, prepared by Prof. H. C. Filley of the Department of Agricultural Extension and Farm Management, under the direction of Prof. Percy B. Barker of the Department of Instructional Agronomy, have been sent out this week to correspondence students. This course is intended to assist high school teachers in giving instruction in agriculture. It consists of eighteen lessons and eighteen sets of experiments corresponding, as given below. Each lesson and set of experiments is carefully worked out in from one to two mimeographed sheets, giving an amount of assistance that has not before been available for this important field of high school instruction.

Mr. Filley is a practical school man of many years' experience, having been superintendent of schools at Albion and other points in Nebraska. He is a graduate of the University of Nebraska and has specialized in the work of agriculture in the College of Agriculture. He brings to this course a theoretical knowledge that has been enriched by a wide and varied experience.

The school men of Nebraska for several years have been calling for assistance in organizing the instruction in agriculture in our high schools. It is in response to this demand that the Department of University Extension has arranged for this course.

Soil Lessons

The rock and its products.
Geological classification and chemical composition of soils.
Soil and subsoil. Soil texture.
Soil structure.
Organic constituents of the soil.
Amount of water in soil.
Movement of soil water.
Means of increasing water content of the soil.
Means of decreasing water content of the soil.
Solubility of the soil.
Soil absorption and alkalies.
Manures—Commercial fertilizers.
Farm manures.
Organisms in the soil.
Nitrogen in the soil.
The soil air.
Heat of the soil.
Soil management.

Soil Experiments

Soil forming rocks and minerals.
Collecting sand, loam and clay for future use.
Field work; soil and subsoil. Soil classification.
Microscopic examination of sand, loam and clay.
Flocculation of clay.
Per cent of water in soil under field conditions.
Capillary power of soils.
Effect of water upon volume of soils.
Rate of percolation.
Evaporation from the soil.
Coloration of water by soil. Testing soils for acid or alkali.
Effect of sand and organic matter.
A study of humus.
Water retained against percolation.
Apparent specific gravity of soils.
Determination of pore space.

Effect of color and texture upon soil temperatures. Soil temperatures. Field work.

CORRESPONDENCE COURSE IN FIELD AND FORAGE CROPS

Prepared by H. C. Filley of the Department of Agricultural Extension and Farm Management, under the direction of Assistant Professor Erwin Hopt, of the Department of Instructional Agronomy.

Equipment

1. Hunt, "The Cereals in America"; Hunt, "Forage and Fibre Crops in America"; Lyon and Montgomery, "Examining and Grading Grains." These may be procured of the Purchasing Agent, University of Nebraska. The student who does not have the texts should remit $1.60 for each of Hunt's books and $ .60 for the laboratory manual by Lyon and Montgomery.
2. Mimeographed sheets outlining the course, sent out by the Extension Department.
3. Samples of grain sent out by the University.
4. Ruled paper and drawing paper,—better if perforated for note-book covers.
5. A drawing pencil, 6H. or 7H. The drawing must not be done with a soft pencil.
6. Hand microscope. One magnifying four or five times is large enough.
7. A ruler and a tape line.
8. A sharp knife.

Time and Credit

1. The course is based upon Hunt's "Cereals" and "Forage and Fibre Crops," and a series of laboratory experiments. The work should be completed in eighteen weeks, but may occupy a longer or shorter time.
2. The credit earned for the completion of the course will be two or three hours of University credit, depending upon the work of the individual student.
3. At least 100 hours of solid work will be necessary for two hours of credit and more proportionally for three hours.
4. In order to complete the course in eighteen weeks, one experiment with drawings and the assigned readings will need to be completed each week.

Method of Work

1. Each week's lesson consists of laboratory work with grains or grasses, most of the material for which will be sent out by this department. A textbook assignment, with suggestive questions accompanies each experiment.
2. The student will perform his laboratory work, and make his drawings, or write out his results according to the mimeographed directions. The textbook assignment should be read and the questions answered. It is usually, though not always, related to the laboratory work. The student will often be aided by reading the text in advance.
3. The results of the laboratory investigation, the required drawings, and answers to the questions should be sent to A. A. Reed, Acting Director, Department of University Extension, Station A, Lincoln, Nebr., whenever the week's work is ready.
4. The work will be read, graded and criticised by H. C. Filley, in charge of agricultural correspondence courses, and returned to the student.
5. At least two written tests will be required. These will be conducted by the county superintendent or some other competent person.

Fees and Costs

The special fee for this course,aside from the samples of grain which are sent out for the student's use, is five dollars ($5.00). The charge for the grain is $5.00. Several people, however, may work with the same grains, so that if a club is formed for the course but one set of grain need be ordered, and the cost to each student lessened in this manner. All the collections of grains sent out, except one, may be kept by the student, and usually can be disposed of to a school wishing to start such a collection.

For Whom Prepared

This course has been prepared to meet the needs of high school teachers of agriculture. It is adapted to any teacher having a high school education or its equivalent, but may be taken by anyone who is interested in field crops, and has some fundamental knowledge of botany.

It is recommended that, where possible, clubs be formed, not only that the cost of the grain may be lessened for each student, but so that the important points of the lesson may be discussed together.

Address all correspondence to the Department of University Extension, Station A, Lincoln, Nebr. Make all remittances payable to the order of J. S. Dales, Secretary, Lincoln.

HOW MANY SPECIES OF PLANTS ARE THERE?

By Charles E. Bessey.

For a number of years I have been at work on the general classification of the plants of the world, and with this there has been associated constantly the question of the number of species in the different groups. The latest results of these studies give me the following data, which will no doubt prove quite as interesting to many other people as they have to me.

Phylum 1. MYXOPHYCEAE:
(Blue-Green Algae, and the Bacteria)
2 Classes; 3 Orders; 9 Families; 2020 Species

Phylum 2. PROTOPHYCEAE:
(Green Slimes, and Confervas)
2 Classes; 7 Orders; 16 Families; 1090 Species

Phylum 3. ZYGOPHYCEAE:
(Pond Scums, Desmids, and Diatoms)
2 Classes; 4 Orders; 21 Families; 7000 Species

Phylum 4. SIPHONOPHYCEAE:
(Tube-Algae, and Tube-Fungi)
3 Classes; 6 Orders; 21 Families; 1260 Species

Phylum 5. PHAEOPHYCEAE:
(Kelps, and Rockweeds)
3 Classes; 5 Orders; 20 Families; 1030 Species

Phylum 6. RHODOPHYCEAE:
(Red Seaweeds)
2 Classes; 7 Orders; 24 Families; 3050 Species

Phylum 7. CARPOMYCETEAE:
(Sac-Fungi, Lichens, Rusts, Smuts, Puffballs, Toadstools)
3 Classes; 29 Orders; 145 Families; 64000 Species

Phylum 8. BRYOPHYTA:
(Liverworts, and Mosses)
2 Classes; 7 Orders; 65 Families; 16600 Species

Phylum 9. PTERIDOPHYTA:
(Old-fashioned Ferns, and Modern Ferns)
2 Classes; 5 Orders; 13 Families; 3800 Species

Phylum 10. CALAMOPHYTA:
(Calamites, and Horsetails)
3 Classes 3 Orders; 4 Families; 24 Species

Phylum 11. LEPIDOPHYTA:

(Lycopodiums, Sealiginellas, and Lepidodendrons)
2 Classes; 3 Orders; 7 Families; 700 Species
Phylum 12. CYCADOPHYTA:
(Seed-Ferns, and Cycads)
4 Classes; 6 Orders; 13 Families; 140 Species
Phylum 13. STROBILOPHYTA:
(Conifers and Yews)
1 Class; 2 Orders; 9 Families; 400 Species
Phylum 14. ANTHOPHYTA:
(Monocotyledons, and Dicotyledons)
2 Classes; 31 Orders; 281 Families; 132500 Species
Total—
33 Classes; 118 Orders; 648 Families; 233614 Species

In this table a "phylum" is a great division of the Plant Kingdom, and it will be noted that there are fourteen of these. This is in sharp contrast with the old treatment which gave us two divisions—"Cryptogams" (Flowerless Plants), and "Phaenogams" (Flowering Plants), or the much later but almost equally faulty treatment which resulted in four divisions—"Thallophytes," "Bryophytes," "Pteridophytes," and "Spermatophytes." The divisions given above much more nearly accord with our present knowledge of the structure and classification of the whole Plant Kingdom.

PROFESSOR H. R. SMITH

An Appreciation

By Dean Burnett

We regret to announce the resignation of Professor H. R. Smith of the Department of Animal Husbandry, who has been connected with the University for the past ten years and who has built up a strong and popular department of instruction within the College of Agriculture. When Professor Smith came here as an assistant professor of Animal Husbandry, the University classes were very small, and the students in the School of Agriculture were few compared with the present day. Professor Smith's instruction was clear, incisive, and dealt with the fundamentals of the industry. The instruction in this department has been both popular and efficient.

Professor Smith's work in the Experiment Station will be shown by the numerous bulletins which have been published on beef production. These have had to do, first, with the rations which produce the most economical gains under feed lot conditions. When this experimental work was undertaken, the value of alfalfa was but little appreciated by feeders in general. The work in the Experiment Station has very greatly modified the practice of the cattle feeders of the state, leading them to a large use of alfalfa with corn, which has greatly increased the profits of the feeding business. Later on, the use of cornstover with alfalfa as a roughness in feeding cattle was studied in a thorough and scientific manner, and it was shown that the cost of beef production could be still further reduced by using the corn-fodder with alfalfa for roughness, thus economizing in the more expensive food, and utilizing a material which has largely been wasted on our Nebraska farms. The use of protein concentrates in cattle feeding was also studied, and it was shown that where protein could not be furnished in the roughness fed, protein concentrates in the form of cottonseed-meal and oil-meal when added to the ration reduced the cost of beef production. Nobody can study the present practice of the best cattle feeders of the state compared with that in use ten years ago without appreciating the good work which has been done by the Experiment Station to increase the profits of the industry.

The work of Professor Smith is greatly appreciated by the farmers and stockmen, who look upon his work in Nebraska as one of large economic value to the live stock interests. By his accurate knowledge of high class live stock, his practical instruction to feeders through the columns of the agricultural press, and his cordial good will and appreciation of the men who are trying to make Nebraska one of the foremost live stock states, Professor Smith has made many friends for the University who did not before appreciate the work which it is doing for the practical farmer and business man. It has been the effort of the Agricultural College to show the people of the state that education is for use and that the application of scientific knowledge to farm operations is essential to the development and prosperity of the state. In this effort, the Department of Animal Industry has been one of the foremost to win the confidence and support of the people.

Professor Smith will leave the University about February 1, to take up his work in a similar capacity with the University of Minnesota. The faculty of the College of Agriculture wish to express their appreciation of his work with us and their best wishes for his future success.

UNIVERSITY ATHLETICS

Basketball

Mr. Stiehm started the practice season in basketball about December 1st with one of the largest and best squads of candidates that has ever reported for this sport. At this writing, prospects appear bright for a successful—and possibly a championship team, in spite of the toll exacted by the typhoid bacillus. Four of last year's strong team are again contenders for places on the scarlet and cream quintet and each one is being pushed hard for his old berth by several strong candidates.

Nebraska's victories over the strong Drake team at Lincoln on January 12th and 13th demonstrated great possibilities in the 1912 team—although the playing was decidedly ragged in places and team work was noticeably conspicuous by its absence; passing was poor and continually Nebraska's team held the ball until it was tackled by a blue and white player—necessitating the throwing up of the ball by the referee. There were streaks of individual brilliancy in the play which augurs well for the future provided this can be developed into a constant quantity and can be accompanied by good team work.

Wrestling

A steady increasing interest is being developed in wrestling. The formation of a University Wrestling Club and the winning of the Western Inter-collegiate Gymnastic Association (Chicago Conference) Championship by the two lone representatives of the University of Nebraska have done much to stir up enthusiasm for this interesting indoor sport. From thirty to forty students are regularly taking part in the wrestling practice and a large and successful home tournament is looked for next month. A return dual wrestling contest with Iowa will be held in the University Armory some time in February. Negotiations have been in progress for some time for a similar contest with the University of Kansas at Lawrence and the University should also be represented in the W. I. G. A. meet at the University of

Illinois on April 13th. Glen Ruby, winner of the 1911 W. I. G. A. lightweight championship, will again represent the University—O. A. Miller, probably one of the clevorest amateur middleweight wrestlers in this part of the country, will also be eligible for all contests held under Missouri Valley Conference rules, but not for the Western Inter-collegiate Championship rules on account of the graduate rule. A large number of other promising candidates for the various classes are practicing regularly.

Intra-mural Athletics

The most important advancement along athletic lines in the last few years has been in intra-mural athletics. This is rapidly correcting the strong and most logical criticism that can be made against the general plan of conducting athletics as found in most of our educational institutions, namely, the centering of the major portion of attention to athletics and the expenditure of large sums of money on the comparatively few men who are candidates for our varsity inter-collegiate teams and who do not particularly need the physical benefits to be derived therefrom—instead of conducting athletics for the general mass of students. The very limited facilities of the University of Nebraska, both in gymnasium floor space, athletic field and playgrounds have made impossible any considerable development of intra-mural athletics.

Inter-Fraternity Athletics

Only one feature of intra-mural athletics as conducted at the University of Nebraska, can be said to compare favorably with that in our sister institutions. Inter-fraternity athletics are probably as well developed here as at any other institution in the country. An Inter-Fraternity Athletic Board, composed of one representative from each Greek Letter Fraternity, controls these contests in a very efficient manner. General competition in basketball, indoor track athletics and baseball is held between the thirteen fraternities. In this winter's basketball schedule between thirty and forty games are scheduled. From one hundred to one hundred and twenty-five participants would be a conservative estimate of the number of fraternity men competing in this sport alone during the winter months. Approximately one hundred and fifty men take part in inter-fraternity baseball in the spring and early summer months. With anything like adequate facilities for handling athletics and play for the general student body similar competition for the remainder of the student body could be arranged by the development of inter-college, inter-class, inter-department, and inter-club athletic organizations. This will not be possible, however, until a very much larger athletic field and playgrounds, tennis courts and new gymnasia are provided—as well as a rearrangement of the general class schedule which will give students from one to two hours at the latter part of the morning or afternoon—preferably the latter—when they will be free to turn their attention to the development of physical health and strength. Such conditions would unquestionably result in such improved scholastic work as to command the sanction of all members of the faculty.

R. G. CLAPP.

DEPARTMENTS OF AGRICULTURE IN HIGH SCHOOLS

Nebraska high schools are moving in the same direction as the schools of other states of the central west in establishing departments of agriculture. Superintendent Myers of Blair has arranged for a two-year course. Superintendent Strickland of Tecumseh is studying the question carefully. Holdrege has appointed a committee consisting of Superintendent McMichael and Mr. A. W. Davidson, a member of the board of education, to inspect the work of the agricultural high school at Albert Lea, Minn. This movement is logical and inevitable. Nebraska is an agricultural state and cannot afford to ignore the highest needs of her people in the bent given to educational efforts.

THE FACULTY

Professor Louise Pound attended the meeting of the Modern Language Association of Chicago, presenting a paper before one of the divisions.

Prof. E. L. Hinman, who was sick with typhoid fever, has resumed his regular work again.

Prof. Myron H. Swenk presented a paper before the American Association of Economic Entomologists at Washington. A prominent feature of the session was a consideration of grasshopper control.

The Komensky Club has presented to All Souls' Church, Lincoln, a beautiful alto-relief portrait bust of the late Professor Jeffrey Hrbek, the first instructor in Bohemian at the University of Nebraska.

Dean C. E. Bessey is president of the American Association for the Advancement of Science. He was given a banquet by his former students at the meeting of the association at Washington. About one hundred were in attendance.

Chancellor Avery gave an address at the dedication of the new high school building at Nebraska City. The building cost $80,000, and is one of the finest school buildings in Nebraska.

Dr. G. E. Condra attended the meeting of the American Association for the Advancement of Science at Washington.

At the conference on Japan and Japanese-American relations, held recently at Clark University, a paper written by Professor Edwin Maxey on "Japanese-American Relations as Affecting the Control of the Pacific," was read. The paper sketched the development of control between the American and Japanese vessels for the markets of China and the relative natural wealth of the two countries. It showed the basis of reciprocal benefits upon which diplomatic and commercial relations between the two countries have always rested. He held that there is enough in common between the two countries to lead them to work together; that there is not enough blood prejudice in the present age to hinder such a condition; and that the effect of the difference in language is rapidly disappearing. From a commercial standpoint he thought the possibility of war between Japan and the United States was too slight to be considered. Dr. Maxey was formerly counsel for the Japanese against the San Francisco school board, and is considered an authority on Japanese-American questions. Among others holding places upon the program were Professor Albert Bushnell Hart, Professor Inazo Nitobe of the Imperial University, Tokyo, Mr. George Kennan, President David Starr Jordan, and President G. Stanley Hall.

THE CHURCH AND THE STATE UNIVERSITIES

The growth of the state universities is among the marvels of our age. In the year ended June 30, 1910,

Harvard, Yale, Columbia and Princeton registered 12,240 students exclusive of the summer session; in the same period four state universities of the middle west—Michigan, Minnesota, Wisconsin and Illinois—had a total attendance of 16,476. This enroliment in the state institutions was not due to a preponderance of technical schools, as of law or agriculture. Leaving out of account all professional students, all graduate students in literary courses and students attending only the summer session, in 1909-10 there were enrolled in the collegiate departments at Harvard, Yale, Columbia and Princeton 7,119 students; in the four state institutions, 12,091.

Leaving out of account all gifts and appropriations for buildings and endowments, but including tuition fees, we find that the income of the four institutions of private support available for current expenses in 1909-10 in round numbers amounted to $4,137,240; the corresponding income of the group of four state institutions was $4,158,988. But excluding tuition fees in 1909-10 Harvard, Yale, Columbia and Princeton had an income from productive funds of $2,215,355, which, capitalized at 4 per cent interest, represents an endowment of $55,000,000; in the same period the four state universities had an income, exclusive of tuition fees, amounting to $3,251,860, which equals the income from an endowment of $81,000,000. In 1909-10 the colleges and universities had an income from productive funds amounting to $11,592,113; the income of the public institutions of higher education from taxation in the same period amounted to $18,-833,658. The university which in 1909-10 received the largest income exclusive of tuition was not Harvard or Chicago or Leland Stanford, but a state university—the University of Wisconsin.

The extent and character and the far-reaching consequence of the revolution which almost imperceptibly has been accomplished in our higher education are as yet very imperfectly understood. First came the secularization of our elementary education, when our nation set the stamp of its approval upon the common school. Then came the secularization of secondary education, when the public high school began to crowd to the wall the academies and similar schools of like grade; in 1909-10, 915,061 boys and girls were enrolled in the public high schools of the United States and fewer than 75,000 in stitutions of secondary rank associated with the religious denominations—and of the latter nearly one-half (30,124) were enrolled in the school of a single church, the Roman Catholic.

It is time for us to recognize the implications of the fact that in all except a comparatively few states, the dominant institutions of higher education, whether collegiate or professional or technical, are already, and will continue to be, supported by taxation. There are straight paths leading up from the primary school through the state university and the state college. The state institutions are close to the people. They respond quickly to public need. They tend to emphasize applied science rather than pure science or literary studies. Their tendency is distinctly away from the learning and culture of the past, toward absorption in the concerns of the present.

From its beginning in this country the Presbyterian Church has considered the education of its youth a chief concern. But because the Presbyterian Church has always stimulated intellectual breadth and independence in its pews, Presbyterian youth have ever been prone to go to the colleges and universities which they deemed most excellent, with slight or no regard for denominational affiliation.

From the time when our boys and girls enter the primary school to the day of their graduation from the high school they are under the religious influences of the home and of the home church. Oh, that that were sufficient to assure a godly life! Yet we well know that in the collegiate period it is not a life of wrong-doing that in most cases is to be feared for our students away from the restraints of home; it is rather a complete absorption in other interests than those of the religious life, an absorption which leads to atrophy of the religious consciousness. Often our brightest men and women go out from college halls to be merely negative, rather than a positive force for the spread of righteousness in the world.

Every year it is becoming more evident that if our church is to accomplish its mission it must retain in its allegiance the young men and women who are to be the leaders of the next generation, of whom so great a number are enrolled in state institutions. No other agency can here take the place of the church's own direct activity. All encouragement and support should be given to our board of education in its efforts through co-operation with local interests to establish and maintain a church home, with provision for pastoral assistance, in each important center of state education.

But though each denomination may make provision for the pastoral care of its own, such provision does not afford a method of reaching as a whole the enormous student body, churched and unchurched, of our state institutions. The goal will not be reached until some way is found to bring the preachers of greatest power from time to time into immediate contact with the general body of students, gathered without regard to denominational affiliations to hear the message. Will not some great-hearted man or woman establish a foundation, like the noble Sage foundation for humanitarian work, or the great Carnegie foundation for the advancement of teaching, which shall have as its sole function the bringing of the most powerful interpreters of spiritual truth face to face with the vast throngs of students in state institutions?

Is this merely a dream?—F. W. Kelsey, in the Continent.

PALLADIAN ANNIVERSARY

Flora Bullock

Seventy active and alumni members of the Palladian Literary Society of the University of Nebraska attended the banquet at the Lindell Hotel December 16, in honor of the fortieth anniversary of the founding of the society. Alumni members exchanged reminiscences of the society's activities of many years ago, and told the younger Palladians of some of the interesting and in part forgotten history of the organization.

Professor Lawrence Fossler of the class of 1881, a member of the society within ten years of its organization, was toastmaster. Chancellor Avery, a Palladian of 1890, was the guest of honor, his photograph appearing upon the cover of the menu cards. The toast list follows:

"Another Jubilee," C. M. Skiles, '92.

"Forma Mentis Aeterna Est," Mrs. E. B. Perry, '02.

"Palladian Standards," D. M. Rogers, '12.

"The Slate—Girls' Viewpoint," Igerna Montgomery, '13.

"How the Boys Scratch," H. J. Burtis, '13.

Minute toasts:

"New Members," Harriet M. Ryner, '12.

"John Jones," Chancellor, '92.

The celebration of the fortieth anniversary of the society is an occasion of interest to many old-timers of Lincoln. The name Palladian is so much a part of the history of the University's pioneer days that to any one who participated in these beginnings and whose memories respond to the suggestion, a Palladian celebration is a feast of recollections.

The forty years of Palladianism mean also just that many years of development for the University. The charter of the institution was granted in February, 1869. The doors of the old red building opened to students in September, 1871. At the close of the first week, J. S. Dales, the honored steward of the University for the past thirty years, called to order a meeting of students and proceeded to organize the Palladian Society. The president was W. H. Snell, now Judge Snell of Tacoma, Wash. When these two young men received the first diplomas granted by the University, in 1873, they left behind them a vigorous student society, which was then and for twenty years following, the center of student activities. This was long before the days of modern football, and apparently the surplus of energy and enthusiasm for which the game is now supposed to furnish the only vent, found a less explosive and spasmodic outlet in the forum of the literary society. But there was plenty of strenuous life to strengthen the sinews of the young Palladians. There were factional wars, internal dissensions, which afforded ambitious youths much valued training for the political arena. In 1873 some members, among them George E. Howard, then president of the society, withdrew and formed the Adelphian. Others withdrew in 1876, and with the Adelphians formed the Union Society, a permanent rival of the Palladian. If the Palladian Society takes credit for having trained Chancellor Avery, Judge Field and Mrs. Field, Professor Stuff and Mrs. Stuff, Professors Fossler, Caldwell, Wolfe, and a host of others, the Unions can answer with their H. H. Wilson and Mrs. Wilson, Judge Lincoln Frost and Mrs. Frost, Dr. Roscoe Pound, Dr. Louise Pound, Dr. H. J. Webber, Dean Albert Woods, Professor H. B. Alexander and likewise a host of others. The rivalry was positive, and generally friendly, but not always, as alumni of both societies testify.

One function of the literary society in the early days was to furnish instruction, inspiration, and amusement for large numbers of the townspeople. Lincoln was a small prairie town, with little to offer in the way of entertainment. What better, then, than to crowd into Palladian hall on Friday night to hear the boys debate and orate and declaim? It was, as has been said, before the days of football; nor had vaudeville been heard of. These young Palladians were very old-fashioned, and employed time-honored means to gain the training they desired. The crowds that attended were very democratic. The chancellor, faculty members, and servant girls of the neighborhood might sit on the same bench. The townspeople were invited to ice-cream festivals, and came, contributing their dimes toward furnishing the Palladian hall. In the 80's the society served the public and lined its own lean purse—Nebraska boys and girls were poor in those days—by bringing to the town a number of lecturers and musicians.

A few days since, in the items of many years ago, mention was made of the full house that greeted the famous singer, Emma Thursby. This was a Palladian attraction. The success of these ventures enabled the society to decorate and furnish its new hall on the third floor of the main—and only—building, until it boasted of one of the best halls in the town. This was the society's home for twenty-six years.

In writing of the early history of the society, Mrs. A. W. Field said, in a Palladian souvenir: "While the organization was co-educational in theory, in fact the girls took no active part in the society, and for two years no part at all until the fall term of 1876. The official records in the secretary's books for these first five years show that there were a few select readings and recitations and one essay given by the girls, the rest of their contribution to the program consisted of music." The recent visit of a well-known Palladian alumnus called to the mind of a Lincoln lady who kept student boarders the first appearance of a Palladian girl as a debater in the society.

"I remember very well," says the lady, "the fatherly expression on the face of this gentleman, who was presiding, when the brave little Palladian girl made such a success of her effort." This must have been about the time Susan B. Anthony spoke in Lincoln. The suffrage debate waxed warm in Palladian ranks, where Amos G. Warner was a staunch defender of the cause. It is probable that Miss Anthony heard of this society, for she immortalized the presiding officer—who was a strong anti-suffragist—by referring to him as "a sprig of the university."

Traditions aside, the co-educational feature of the society is one of the great things about it. There is more real equality developed in such an organization than is possible in segregated clubs within or without academic walls. The extreme of silence described by Mrs. Field has not been Palladian girl fashion for many years. In business affairs of the society, in committee work, in holding office, in the value set upon her opinion, the Palladian girl stands at par, not, as in most organizations, at twenty-five per cent discount. Likewise, the boys stand on the same plane in social affairs, the art of entertaining is not left to the girls. The real value of co-education is nowhere better shown, nor its uplifting power more completely proved.

Of course, the Palladian Society no longer fills so large a place in the university life. Fashions in entertainment, as well as the number of amusements available on Friday night have changed. Probably many persons who used to attend the literary societies years ago do not know that both Palladian and Union hold their regular weekly meetings on Friday nights in their halls on the third floor of the Temple. As always, these meetings are open to the public. While the power of the societies is not so broad as it once was, among the members the same useful influences are at work. About seventy Palladians are maintaining the standard of character and conduct for which the society has stood for forty years. The younger alumni are making their mark in various lines of work, as they follow after those whose university days were long ago. And alumni young and old, as they gather at one of their famous reunions, take pleasure in testifying that a very definite and permanent value was added to their university course by their work in the Palladian Society.

ALUMNI TIDINGS

ALUMNI CLUBS

I. E. Montgomery of Bloomington is making arrangements for an organization in Franklin county.

County Attorney Anderson of Phelps county called a meeting of the alumni at Holdrege and a club has been organized.

Prof. H. B. Duncanson has been elected president of the Nemaha County Alumni club. Miss Katherine Woods is secretary-treasurer.

L. H. Cheney and E. S. Case have formed a county club at Stockville. About twenty members joined, and all live in Frontier county.

Data is now being collected for the new alumni directory. Do not neglect to fill out the data blank and return it to the alumni secretary.

President H. B. Duncanson of the Nemaha County Alumni club has called a meeting of the organization for January 27, and the graduates will meet at Auburn.

President A. W. Field delivered an address at the alumni banquet at the State Teachers' association in Omaha, Nov. 9. He outlined the plan of organization. Secretary Amos Thomas of the Omaha club arranged for the banquet.

Rapid progress has been made in forming county alumni clubs throughout the state. Secretary G. W. Kline has taken this matter up with graduates living in nearly every county. Suggestions concerning dates and places of organization are solicited. Address Secretary G. W. Kline, First National Bank building, Lincoln, Nebr.

MARRIAGES

The marriage of Miss Edith G. Sheperd and Rev. W. O. W. Reynolds, '11, was celebrated at Grace M. E. church, Lincoln, Dec. 21, 1911. Mr. Reynolds is pastor of the M. E. church at Greenwood, Nebr.

Miss Clara C. Marshall, '07, and George R. La Rue, A. M. '09, were united in marriage at Panama, Nebr., December 22, 1911. They will make their home at 1239 Washington avenue, Ann Arbor, Mich. Mr. La Rue is an instructor in the University of Michigan.

Dr. Herman Bocken, '10, and Miss Anna Duffy, of Lincoln, were united in marriage, January 17. Their home will be at Harlan, Iowa.

Cards have been received in Lincoln announcing the marriage on December 21st of Prof. John Lawrence Gerig, '02, to Miss Bianthia Savannah Crim in New York City. Mr. Gerig is a professor of Romance languages in Columbia University.

John W. Roberts, '04, was married recently to Ethel Hutchins of Falls City. Since finishing his A. M. degree, which was in 1906, Mr. Roberts has been connected with the Department of Agriculture at Washington, D. C.

Miss Nell Whitmore, '11, and Nels Edward Johnson were united in marriage Thursday evening, December 7, at the home of the bride's parents, Regent and Mrs. W. G. Whitmore, Valley, Nebr. Chancellor and Mrs. Avery were in attendance. Mr. and Mrs. Johnson are to make their home at Valley, Nebr.

ALUMNI NOTES

Clement Chase, '83, is president of the Omaha chapter of the Nebraska alumni and presided over the recent spread given to the Cornhusker team in Omaha. He is actively interested in all educational matters, being a trustee of Bellevue college and also of Brownell Hall, the diocesan school for girls in Omaha. As chairman of the committee of entertainment of the University Club of Omaha, and also as secretary of the famous Palimpsest club, he has been instrumental in securing the visits of many famous educators to that city. Mr. Chase is still engaged in the publishing business, being president of the Chase Publishing company, which owns the Western Banker of Omaha and the Western Financier of Kansas City, the two leading financial papers of the west; the Western Trader of Omaha, a commercial publication, and the Excelsior, Omaha's oldest weekly paper. He has four children: Clement Edwards Chase (Cornell, '10 C. E.), who recently had charge of construction of a large cantilever bridge in Oregon, and is now on the new city bridge at Toledo, Ohio; Carmelita Chase, a senior at Bryn Mawr college and president of athletics there; Philip Bradford Chase, a junior in the Omaha high school; Helena Modjeska Chase, who, at 11, has been publishing a little magazine known as the "Shrimp," illustrated with her own drawings. Philip will take the architectural course at Cornell, Miss Helena is to be educated in art. Mrs. Chase (Lula Edwards) is active in a number of Omaha institutions, particularly the Y. W. C. A. and Trinity cathedral.

Thomas L. Hall, an alumnus of the state university, has been elected railway commissioner. E. B. Perry of Cambridge has been chosen district judge.

Floyd Seybolt, well known as a former university student, did not submit a claim for his fees as bank examiner under the Shallenberger regime. A number of examiners were appointed, but the bank guaranty law was attacked in the courts and he did not serve. Several filed claims for salaries, but Mr. Seybolt declared that he had performed no service for the state and did not believe he had a just claim to any salary.

Paul F. Clark, '87, formerly of the law firm of Clark & Allen, has entered the race for nomination for Congress in the First district.

C. F. Ansley, '90, has been chosen dean of the College of Fine Arts soon to be established at Iowa University.

Frank M. Woods, '90, while maintaining his residence and business interests in Lincoln, has given up, temporarily, his law practice and is devoting all his time to the independent telephone interests of the country.

Frank E. Bishop, '91, who has been connected with the law department of the Burlington railroad for many years, has resigned his position and entered the law firm of Hall, Bishop & Pound, successors to Hall, Woods & Pound, Lincoln.

Floyd Seybolt, ex. '91, is a candidate for the democratic nomination for state treasurer.

Attorney W. C. Frampton of the class of 1893 has just argued an important case in the Lancaster county district court. He has unearthed new legal arguments and precedents in the Haberlan pension suit, a case in which the city of Lincoln voted a pension to an aged fireman. Mr. Frampton's work has caused considerable comment in legal circles.

Paul Pizey, '93, and C. S. Polk, '87, have law offices together at 304-306 Boise City National Bank Bldg., Boise, Idaho.

Thomas E. Wing, '93, is practicing law in New York City.

Edwin Carmack, '94, is practicing law in Kansas City.

John W. Dixon, '94, is now located at 71 Broadway, New York, where he is practicing law.

E. E. Nicholson, '94, is associate professor of chemistry in the University of Minnesota.

Dr. Charles A. Elliott, '95, is interested in the work of the alumni. His address is 510 Oakwood Blvd., Chicago, Ill.

W. D. Hunter, '95, has been elected president of the national organization of entomologists. Mr. Hunter's home is Dallas, Texas.

C. R. Welden, '95, is engaged in the banking business at Peru.

W. R. Hart, '96, is professor of agricultural education at Amherst, Mass.

May Whiting Westerman, '96, is now living in St. Louis, Mo.

W. N. Hayward, '97, has removed to New York City, where he has entered the practice of law. Mr. Hayward is secretary of the National Republican Committee.

Eva Schock Hollenbeck, '97, is now living in Denver. Her husband is superintendent of the Colorado Springs district of the M. E. church.

The present address of Ernest F. Warner, '97, is St. John's Park, Florida. He is the president of the St. John's Development company at that place and is in the real estate business.

L. V. Patch, '98, is engaged in a number of business enterprises at Payette, Idaho.

Mrs. R. M. Pence, formerly Miss Anna Sidle, '98, is now living at Wauneta.

F. L. Meyer, '99, is located at Trenton, N. J., where he is technical assistant to the manager of the insulated wire department of J. A. Roebling's Sons company.

C. J. Allen, '00, is now engaged in the real estate business in Fargo, N. D.

Jessica Morgan, '01, was a Lincoln visitor recently.

Howard Saxton, '01, is now county attorney of Thurston county.

H. A. Tukey, '01, is still in the real estate business in Omaha.

E. H. Whelan, '01, is serving his third term as county attorney of Holt county.

L. P. Builta, '02, is located at Morocco, Ind.

W. R. Jackson, '02, Deputy State Food Commissioner, formerly State Superintendent of Public Instruction, died at his home in University Place, January 9, after an illness lasting several months.

F. J. Kelly, '02, is superintendent of the training school at Spearfiesh, S. D.

Cecil C. North, '02, is professor of sociology at DePauw university.

E. T. Sage, '02, is now connected with the University of Washington at Seattle.

Dr. H. M. Benson is practicing medicine at Oakland, Neb. He is a member of the class of 1903 and holds diploma No. 1, issued by the Medical Department of the University of Nebraska.

W. C. Frampton, '03, is practicing law in Lincoln.

J. C. McNish, '03, is president of the First National Bank of Wisner.

Fred E. Ptak, '03, is practicing law in Oklahoma City, Oklahoma, 1015 State National Bank Bldg.

Mrs. Lottie Scherzer Richards, '03, is teaching in Gig Harbor, Wash.

G. P. Shidler, '03, is practicing medicine at York.

C. T. Borg '04 is residing at Pateros, Wash. He is practicing law.

Edgar F. Davis, '04, now a resident of Los Angeles, Calif., was in Lincoln recently.

W. F. Holman, '04, has accepted a promising position in the Department of Mathematics in the University of Minnesota.

Arthur R. Honnold, '04, is now attorney for the U. S. Reclamation Service and special assistant U. S district attorney. His address is 519 Commonwealth Bldg., Denver, Colo.

Jeannette Burlingame Macomber, '04, is now residing at Sutton. She is vice-president of the Clay County Alumni club.

Mrs. Florence Westcott Duncan, '05, is now residing in Lincoln.

Adele Koch, '05, is arranging for a meeting of the Cuming county alumni. She is teaching at West Point.

Bertha Marshall, '05, is teaching Latin and German in the high school at Fairfield, Iowa.

The death of Frances Cutter Rivett, '05, at Omaha, December 30, 1911, has brought sorrow to a wide circle of friends and relatives.

E. G. Spencer, '05, is in the lumber business at Huntley, Neb.

C. E. Adams, Jr., '06, is now land agent for the Union Pacific railway. His headquarters are at Denver.

Dr. Clarence Emerson, '06, has been appointed pathologist and physician in the Nebraska Hospital for the Insane.

Mrs. R. S. Martin, formerly Veda Lily Lanphear of the class of 1906, is residing at Alhambra, Cal.

Caroline C. Nelson, '06, is engaged in missionary work in India. She is now superintendent of the girls' high school at Meerut.

C. E. Temple, '06, is associate professor of botany in the University of Idaho at Moscow.

R. A. Van Orsdel, '06, is practicing law in Omaha and is associated with Baldridge, Debord & Bradenburg.

A. H. Wellensick, '06, is general agent for the Los Molinos Land company and is located in Lincoln.

Attorney Frank Bartos of Wilber has announced his candidacy for the state senate. He is a member of the class of 1900 and has been practicing law in partnership with his brother, Stanley Bartos, '07.

D. P. De Young, '07, is now in the consular service at Amsterdam. He has organized an alumni club of which he is president, treasurer, secretary, and only member. He reports enthusiastic, harmonious, and at times rousing meetings.

Margaret McCutchen, '07, has been elected superintendent of Merrick county. She has been teaching in Idaho during the past two years.

C. N. Simon, '07, is practicing law in Tulsa, Okla., and pleads "not guilty" to matrmonial alliances.

H. A. Bergquist, '08, is engaged in the coal and grain business in South Omaha.

J. A. Murphey, '08, is engaged in the land business in Omaha.

H. D. Young, '08, is now located at Whittier, Cal.

Sheldon B. Coon, '09, is traveling for the Nebraska Silo company.

R. O. Green, ex. '09, is exgaged in engineering at Wilmer, B. C.

Miss Clara H. Miller, '09, writes for the Journal from 309 The Napton, Butte, Mont.

The University of Nebraska

SUMMER SESSION

June 14 to August 9, 1912 Registration June 14-15

Academic and Professional Courses by Twenty-Five Departments

Special Course to meet the requirements of new City Certificate Law.

Entrance Requirements to the Summer Session—Admission is granted without examination to graduates of accredited schools. Full admission, thirty points; conditional admission, twenty-four points. September 1, conditional admission will be advanced to twenty-eight points. Applicants 21 years of age may be admitted on approval as "Adult Special" students without reference to a degree.

GRADUATE COLLEGE

Graduate work is offered in nearly all departments. Attendance upon two summer sessions satisfies the requirements for resident work, in approved instances, for the Master's degree.

SCHOOL OF SUPERINTENDENCE

Special week, June 10-14, in conjunction with State Department of Public Instruction. Special features each week throughout entire summer session.

TEACHERS COLLEGE HIGH SCHOOL

Special session of eight weeks at the University Temple. A secondary school offering instruction to high school students and young teachers in all important secondary subjects. Normal training course. Separate departments for students carrying academic subjects and for teachers wishing normal training. Well-qualified instructors selected from successful superintendents, principals and teachers of Nebraska. Apply before June 1 to insure admission.

Academic Department. Students may carry one or two subjects completing a full semester in each.

Normal Training Department. Provision is made for the needs of those desiring to meet requirements for county certificates.

For further information address:

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THE SUMMER SESSION

Registration for the summer session of the University of Nebraska will begin Friday, June 14, and class work will be started Monday, June 17. The session will continue for eight weeks, closing the ninth of August. Again the management will be under the direction of Chancellor Avery, assisted by committees of the faculty. The increase in attendance in recent years, the maturity of the student body, the splendid character of work done and the spirit of appreciation shown by those in attendance have encouraged the management to continue the general policy of the session, making such changes as appear to extend the usefulness and increase the helpfulness of the University to the state.

Admission

The requirements for admission to the summer session correspond to those of the semestral sessions as given in the general table of entrance requirements. This policy insures a student body with good preparation to carry university work. It has been in operation for one session, and has proven so satisfactory that it is now a settled policy. Full admission is granted without examination to graduates of accredited schools on the presentation of 30 "credit points." Conditional admission is permitted on a minimum of 24 points. On September 1, 1912, this minimum will be raised to 28 points.

Persons at least twenty-one years of age who do not fulfill the regular entrance requirements, but who have other academic training substantially equivalent, or whose incomplete academic training has been duly supplemented by experience in teaching or other practical preparation, or by special attainment in some particular line, may be admitted as adult special students, under such conditions as shall be deemed wise in each individual case.

Fees

It is necessary for students registering in the summer session to matriculate unless this has been done previously. The matriculation fee is $5.00 and is paid but once. The incidental fee, $3.00, is required, together with any advertised laboratory fees. There are no other charges.

For Teachers

While the summer session has become in organization and in plan a regular half semester of the University, the fact is held constantly in mind that the most important function of the session is to place at the disposal of the great body of teachers of Nebraska the splendid facilities of their thirteenth to nineteenth grades at a time when they can avail themselves of the opportunity for study. Accordingly all departments make such variations in the courses offered at this session as will make them, or a part of them, especially suitable for teachers. At the same time, they are so planned as to make the credit available to apply on a degree when so desired.

There is a large number of technical courses in education, educational theory and practice, educational psychology, and secondary education that are offered especially for teachers, principals, and superintendents. Nearly every department that offers instruction bearing directly upon the work of the teacher has shaped one or more courses so as to give consideration to the pedagogical aspects of the subject. Several courses are offered for teachers of normal training subjects in Nebraska high schools. Unusual opportunities are offered for those who wish to prepare for teaching agriculture, manual training, and home economics.

City State Certificates

Special provisions are made for teachers desiring to meet the requirement of the new law governing city state certificates. Courses will be offered in academic subjects, in which examinations are required by the State Department of Public Instruction. Courses will also be offered in the professional subjects, for which credit can be certified on the completion of University work.

For Undergraduates

The increase in the length of the term of the summer session to eight weeks has made the college courses especially attractive. Owing to the fact that there is little loss of time through registration and final examinations, it is possible to offer a maximum of nine hours credit in college courses for the session. More courses are offered than in any previous session. Students who have become irregular in their work, or who are trying to graduate in less than four years, can receive material assistance by taking advantage of this summer work.

For Graduate Students

The opportunity for graduate study is being taken advantage of each year by greater numbers of Nebraska teachers. The University is recognizing this condition and is adding courses as fast as a clear demand is recognized. Every department represented in the summer session either provides set graduate courses or supervises graduate study in the case of properly qualified candidates. Dean Sherman of the Graduate College is in residence each year to direct the work. The committee in charge of graduate instruction will appreciate suggestions from teachers who are looking forward to graduate study, in order to meet more fully the wishes of those who desire to spend their summer as students at the University. By concession, approved students may be accounted to have fulfilled

the requirement of residence by the completion of eighteen hours of work registered for in the summer session of the University.

School of Superintendence

The University of Nebraska will continue the plan so successfully followed in recent years of holding a special School of Superintendence in connection with the summer session. The State Department of Public Instruction joins in the organization. It has seemed best for the current year to have this school the week preceding the opening of class work in the summer session. This is commencement week at the University, which gives many graduates, who are now high school instructors, high school principals, and city superintendents, a better opportunity to attend the School of Superintendence than any other week of the summer. No fee is charged for membership in this school.

The School of Superintendence will be devoted to a study of the problems of organization, supervision, administration, and instruction of city, village and rural schools. The faculty will comprise such well known educators as Chancellor Avery, State Superintendent J. E. Delzell, Superintendent Charles Henry Keyes, of Hartford, Conn.; Superintendent E. U. Graff, of Omaha; Superintendent W. L. Stephens, of Lincoln; Superintendent A. H. Waterhouse, of Fremont; Inspector G. A. Gregory, of Lincoln; Dean Charles Fordyce, Dean E. A. Burnett, Dr. G. W. A. Luckey, Dr. H. K. Wolfe, Dr. George E. Condra, and Professors F. A. Stuff, C. W. Pugsley, and Inspector A. A. Reed, of the University.

It was the opinion of the superintendents, principals, and high school teachers who attended the School of Superintendence last year that the organization should be continued. Many letters have been received from those who attended last year saying that they were greatly benefited thereby. A much larger attendance is assured this year compared with the attendance last, but in a school of this kind its success is not to be measured solely by attendance. Where fifty, or one hundred or one hundred fifty superintendents, principals, and teachers meet to consider the problems of organization, supervision, administration and instruction in school work, the success of such a conference must be measured by the spirit of inspiration put into it by those who instruct as well as those who are instructed.

Judging from the experience of the past years, no one engaged in any phase of school administration can afford to miss the inspiration and fellowship of these conferences.

Industrial Courses

The University desires to emphasize the importance of agricultural education and other lines of industrial training. It has been impossible to meet the calls for trained teachers in agriculture, domestic science and manual training in the high schools of the state. Teachers themselves, failing to foresee this demand, are not prepared at this time to accept these inviting positions. Schools have been forced to attempt this instruction with teachers poorly qualified to give it. Boards of education are appealing to the University for better trained teachers, in order that this important movement may not fail because of the inefficiency on the part of those responsible for this instruction.

The University of Nebraska feels a moral responsibility to aid this important work because of the fact that Congress by the Nelson amendment to the Morrill Fund, provides that a part of this fund may be used for the preparation of teachers to give instruction in the elements of agriculture and mechanic arts.

Free Scholarships

Realizing that many more teachers can be reached during the summer session than in the regular University year, and that more good can be done for this cause in a short time with less money by offering instruction to experienced teachers, than by attempting to train new teachers only, the University has decided to measure up to its opportunities as well as its responsibility. In order to give impetus to this cause, the Regents of the University of Nebraska will give one hundred free scholarships to teachers desiring to qualify for this work. It is evident that all teachers who qualify to give instruction in these subjects will be in demand at good salaries. A teacher may give full time to any one of these subjects in order to improve the opportunity for thorough preparation. All the splendid facilities of the University of Nebraska in agriculture, mechanic arts and home economics will be at the service of the teachers in attendance, under the direction of expert instructors of wide experience in these lines.

Board and Rooms

Lincoln has unusual facilities for accommodating students in attendance at the summer session. Nearly all rooms available during the regular University year can be called into service for the summer, so there is a wide range of choice at very reasonable prices.

As a means of improving the condition of student life, as well as of reducing the cost of living, the University has equipped a cafeteria in the Temple and has turned it over to the University Y. M. C. A. to be operated at cost. This will insure wholesome, well-prepared food served at a minimum price.

It has been decided again to use the Home Economics Hall at the University Farm as a women's dormitory, thus giving the advantages of suburban residence to teachers in attendance. The Farm is conveniently reached by rapid transit connections, and those who have availed themselves of this poportunity in the past have been enthusiastic regarding the comfort and beauty of this living place during the summer season.

Courses of Study

Courses numbered in parenthesis are offered in the summer session only. Other courses are numbered as in the University calendar.

Agricultural Subjects

The registration last summer in agricultural subjects and the interest shown in these subjects have justified an extension of the work for the coming session.

Professor C. W. Pugsley, Professor of Agronomy and Farm Management, will be in residence and will give several lectures.

Professors Barker and Hopt will offer **Agronomy 19**, a combined course in Field Crops and Soils. There will be a discussion of the different crops grown, special attention being given to methods of preparing the soil, of seeding and of harvesting. A study will be made of various varieties of each crop, with a discussion of their merits, and an examination of books suitable for secondary school work.

The work in Soils will cover the most important problems of soil cultivation. All the work will be given from the teacher's standpoint, the aim being to prepare the student as far as possible for teaching agriculture in secondary schools.

Dairy Husbandry

Prof. W. L. French will give a general survey of home dairying, consisting of a review and practice of the best methods of handling milk and dairy products on the farm. There will be a brief study of the four leading dairy breeds of cattle, using animals from the University Farm herd as types. The course will be adapted to public school conditions. Two hours credit.

Horticulture

Professor Westgate will give again **General Horticulture 15**, a course covering the more important phases of the subject, primarily for those who intend to teach agriculture in the secondary schools. It will include the principles of fruit growing, methods of propagation, sites and soils, orchard tillage, pruning, and spraying. The school garden will receive consideration, with plans and systems of management. The principles of ornamental gardening will be presented, with special application to home and school grounds. The experiments in the laboratory will be especially adapted to the needs of the teacher. The credit is three hours.

American History

Professor Persinger, who has taught this subject in the summer session for several years, either alone or in conjunction with Professor Caldwell, has charge of the work in this department this year. The courses offered are intended to meet the needs of (1) teachers of history who may wish to enlarge or perfect their knowledge of the subject, (2) undergraduate students desiring to make extra college credit and (3) graduate students seeking advanced degrees through summer work.

2. **Revolutionary Period, 1763-1783,** open to all.

4. **Later Constitutional Period, 1832-61,** open to advanced students, teachers and graduate students.

6. **Recent American History, 1877-1912.** For teachers and advanced students. Research work for graduate students.

Botany

Dr. Bessey finds it practicable to offer **Botany 1 and 2,** the regular courses in general botany. It is a study of the structure and activities of selected representatives of the various groups of plants in the vegetable kingdom, beginning with the lowest and ending with the highest, which meets the needs of those who expect to teach botany in the high school, and takes up the topics in sequence recommended to teachers in such schools. The course gives six hours of credit and can be taken by University students as well as at any other time of the year.

(B) Botany. A course offering individual work to advanced students who are prepared to carry systematic botany.

Chemistry

Professor Dales will offer **A and B General Chemistry.** This is a course designed to give a general view of chemistry. It consists of lecture and laboratory work on the more common non-metals, followed by the study of the more important metals with a brief consideration of the carbon (organic) compounds. The needs of those who are preparing for state professional certificates receive careful consideration. It is designed primarily for those who have had no previous training in chemistry.

Analytical Chemistry. The laboratories and library of chemistry are placed at the disposal of students who have the proper preparation to do quantitative and other advanced analytical work of graduate quality. Mr. Wilson will assist.

1 **and 2, Qualitative Analysis.** Prerequisite: A and B, D or 2 credit points. Four hours credit. Mr. Wilson.

7. Quantitative Analysis. Gravimetric determinations of the more important bases and acids. Prerequisites: Courses 1 and 2. Mr. Wilson.

Education

Dr. Luckey will offer the following courses:

4. **Child study** makes a study of the physiology and psychology of childhood, with special reference to the pedagogical principles involved. An examination is made of the literature of the subject insofar as it directly concerns teachers. The course includes discussions of the more important methods used in the study of children, the effects of child study on methods of instruction, school management and other subjects of practical pedagogy. It also furnishes sufficient facts, in each of several periods of child life, upon which to base intelligent discussion of motor control, forms of expression, cultivation of attention, growth of self-respect, moral training, habit, fatigue, spontaneity, etc. This course covers the development of the child during the first twelve years and is valuable as a foundation for the course in Adolescence. It is open to teachers and to parents, and also to students in the last two years of their course who have had a semester of psychology. Five hours attendance. Two hours credit.

6. **School Hygiene** is a course devoted to the study of school environment and curricula in reference to their effect upon the health, growth and development of school children. It considers the location and sanitation of school buildings, including light, heat, ventilation, and furniture; medical inspection , school diseases, baths and lunches; sleep, food, clothing, exercise, study, fatigue, recreation and health of teacher and pupils. Two hours credit.

8. **Graduate Seminary** is a study of one or more current educational problems of special interest to the teachers of Nebraska with the thought of directing the student in the preparation of a thesis that will lead to a higher degree in education. It is open to graduates who are registered for advanced degrees in education. Five hours attendance. One or two hours credit.

Educational Theory and Practice.

Inspector Reed will offer Educational Theory and Practice 26. **The Supervision and Criticism of Instruction** is designed for graduate and under-graduate students and experienced teachers, who are planning to become principals or superintendents of public schools, or supervisors of normal training classes. The course involves (a) the observation and critical study of the teaching process as exemplified in the model high school; (b) conferences for lectures and discussions.

Educational Theory and Practice in Elementary Schools. Superintendent W. L. Stephens will repeat the course which was carried last year with such marked success in this Department. It consists of a detailed and analytical study of the technique of instruction in the elementary schools, including a systematic observation in the elementary school, extending through the eighth grade, together with lectures, reading, and discussion based on the work observed. A fully organized vacation school, of the Lincoln city schools, with ten or more teachers will be used for observation purposes in connection

with this course. It will consist of the intermediate and the grammar grades, and will include not only academic instruction, but the practical conduct of playgrounds and manual training.

The Teaching of Reading by Professor Reed, will consist of a study of important elements in the mechanics of reading, including emphasis, grouping, time, pitch, melody, force and quality; methods in primary reading; methods of securing thoughtful silent reading and expressive oral reading; types and effects in relation to reading; the reading lesson of the intermediate grades; the reading lesson of the grammar grades; practice in reading selections of literature suited to children of different ages. A class will be organized in the Teachers College High School to meet the requirements for normal training in reading for high school students and young teachers.

Secondary Education

Principal V. G. Mays, of the Lincoln High School will offer a general course on the problems of the secondary school. Inspector Reed will continue the series of conferences on secondary education as in former years.

English Language and Literature

Professor Stuff will offer English **Literature I**, an introductory course, treating of literary elements and principles with study of modern poetry and prose.

11a. **Advanced Literature.** A study of the chief sources of value in literature. Particular attention given to development and tendencies. Exercises in appreciation and criticism of selected specimens from the best writers. Discussions, individual research and reports on special topics. Open to graduates, under-graduates and teachers with some preparation for the study of advanced literature. Professor Stuff.

29. **Teachers' Course in English Language and Literature**—A practical study of the synthetic, interpretative and technical phases of presenting this subject in all primary and secondary grades. Special attention given to outlining of courses, development of material, selection of books for school libraries and home reading. Experience in the preparation and presentation of topics will be gained in connection with the Teachers College High School Practice Course in Teaching the English Language and Literature. Lectures, written reports, observation reports, criticism, library readings. Prerequisite: Courses 1, 2, 11, 12. Two hours credit. Professor Stuff.

European History

Professor F. Morrow Fling plans to give instruction in the summer session this year. He will offer a teachers' course in Greek History, which is intended for high school teachers of Greek History, but may be taken by students not intending to teach. The aim is to take up the subject in the class room as it would be taken up by the teacher in the secondary school, assigning lessons, directing the preparation of them, and conducting the recitation so that the teacher who has completed this work may repeat it in her class. To get the best results from the course all the teacher's time should be given to it, the reading in sources and secondary works, the study of illustrated material, the preparation of maps and outlines calling for the time that a teacher can give during the summer session. It is believed that the teacher who does this work thoroughly will be able to teach her classes in Greek History in a manner that will be most satisfactory to herself, her superintendent, and the University. This course carries eight hours University credit. Professor Fling will also offer the French Revolution for graduates and advanced students. Part of the time will be given to seminar work, and can be taken only by students with consideraole undergraduate training. From two to eight hours credit will be given, according to the time devoted to the course.

The History and Criticism of the Fine Arts

Professor Dann will continue his courses in the history and criticism of art. In addition to biographical and historical studies they include the principles of aesthetic criticism, the form and spirit of art in relation to nature, to science, and to life; the conventions of architecture, sculpture, and painting. The courses consist of lectures and discussions in class, readings, and preparation of papers on assigned topics.

40 **The Interpretation of Art**—A general course intended to promote sound criticism and appreciation of works of art. It aims to cultivate the aesthetic sense by a discussion of the principles and qualities of art, and by practice in interpreting pictures, sculpture, architecture, and decorative designs. Examples are taken from various periods and schools of art. Lectures, discussions and reports. Two hours credit.

45. **Cathedral Architecture**—A study of typical and famous churches in Italy, France, Germany and England. The principles of architectural construction and decoration are considered, as well as the original and the developed early Christian, Romanesque, and Gothic styles. Two hours credit.

French

Miss Reese will offer the same work carried last year. It consists of (1) **Beginning French**, a course in which the language is taken up scientifically and comparatively, including a thorough drill in grammar, verbs, pronunciation, diction and idioms, with appreciative reading of 150 pages of modern French. Ten hours attendance required.

(3) **Second Year French** is a continuation of the first year's work, based mostly on modern authors.

(7) **Classical Authors** consists largely of plays of Moliere. Students preparing for the general examination for the degree of Ph. D. can avail themselves of the courses in French. Graduate study will be offered for those of proper preparation.

Geography and Geology

Dr. Condra has arranged to be present during the opening weeks of the session, leaving in time to take up his work at Cornell University. Professor Bengtson will be present the first half of the session. Mr. Filley and Miss Griffith will be in charge of classes throughout the session. The courses in Geography and Geology are given with the double purpose of emphasizing the special matter and the methods of presentation. The equipment of the Department of Geography is available and much use is made of the extensive collections in the University museum. Lincoln is excellently situated for the study of geographic and geologic features in the field, and a number of excursions will be made. The methods of conducting field work are exemplified in order that teachers may study excursion work from that standpoint as well as acquiring knowledge.

(1) **Geology** consists of lectures, laboratory, museum and field work, and is open to all. It is illustrated by carefully selected lantern slides. Teachers preparing for the state examination should take this course.

(1) and (7) **Physical Geography** gives the teachers an opportunity to do such laboratory and field work as will prepare them to give proper instruction in physical geography and normal training courses in Geography in high schools, and to prepare teachers for the professional state certificate.

(5) **Industrial Geography** makes a careful study of the geographic control of industry, with special reference to school conditions and the presentation of this subject in the grades.

(A) **General Geography** consists of recitations and lectures illustrated with lantern slides dealing primarily with materials used in teaching geography in the grades. Special emphasis is given to the geography of Nebraska.

German

Professor Fossler and Miss Chamberlain will carry the work in this department.

(1) **Beginners' Course** requires ten hours attendance. Students completing this course can enter Course 2 in the fall semester. Miss Chamberlain.

(3) **Second-year German** is a reading course. Students completing it successfully can enter course 4 in the fall semester. This course requires five hours attendance. Miss Chamberlain.

Professor Fossler will offer (5) **Introductory Literature**, (7) **Conversation Course**, and (19) **Teachers' Course.** The aim of the conversation course is to afford practice and exercise in phonetical German. It will include a review of the chief difficulties of the grammar. Students taking this should have had at least two years of college or three years of high school German. The Teachers Course is a general survey of the principles underlying the teaching of German.

Home Economics

Professor Rosa Bouton will direct the courses in home economics and will offer (a) **Household Administration**, which considers house plans and furnishings, household sanitation, management of household affairs and exercises in practical housekeeping. It is a one-hour course.

Miss Davis will offer **1 and 2 Sewing**, a fundamental course in hand and machine sewing, which will apply to making household articles, under garments, and shirt waist suits. It will include also repairing, textiles, and the principles of designing applied to household art. The course carries six hours of credit.

Miss Brown will offer **15 Beginning Study in Foods**, a consideration of composition, nutritive and economic values, with practice work illustrating the principles and processes of cooking and serving as applied in the preparation of various dishes. This is a two-hour course.

Latin

Dr. Hunter will give the same courses carried last year. The Teachers' Course in first and second year Latin is for the purpose of consideration of methods, books, pedagogical helps and review or the principles of syntax, formation of words and idioms, and a discussion of the problems to be met in earlier Latin study. It will be a general survey of Caesar's writings with detailed examination of parts for use in high school classes. It is open to teachers and those who expect to teach and wish to know the latest in books, methods and facts. The Course in Cicero's Orations will consist of a careful study of three orations, accompanied by Latin composition. It is for teachers and students. The Course in Virgil will be based on the reading of two books of Aeneid, with drill in Prosody, constructions and poetical expression. There will be a study of the literary art of Virgil, together with comparisons with other epics, and of his life and works. The course is given with special reference to teachers, but others are admitted. By the assignment of extra work credit for five hours will be given for this course.

Professor Sanford will offer Cicero's De Amicitia, giving to diligent students an amount of work and credit equal to the first semester of the freshman year. For graduates and advanced students he will offer a course in Horace's **Odes and Epodes**, and a course in **Latin Literature of the Empire.**

Manual Training

Professor Bunting offers again the course given last year designed especially to meet the needs of those preparing to teach manual training in the public schools. Also he will offer advanced instruction for those who took the course last year or who have had similar preparation.

Mechanical Drawing

The course in elementary mechanical drawing for teachers of manual training consisting of plans, elevations, and sections will be given again.

Mathematics

Professor Brenke will offer a course in Algebra intended primarily for teachers. It should not be taken by any one who has not had at least a year's work in algebra. The course in Trigonometry is for beginners, and will cover the subject of plane trigonometry. It should fit the student to pass the examination for the teachers' professional certificate.

Courses 2, 3 and 4 will not be regularly scheduled. A few properly prepared students may register for a limited amount of work in these, subject to previous arrangement with the instructor.

Teachers' Course. Fundamental concepts of algebra and geometry. This is a course for high school teachers of mathematics. It is to be an introduction to a study of the recent developments of our knowledge regarding the fundamentals of these subjects and will follow the exposition given in "Young's Fundamental Concepts of Algebra and Geometry."

Philosophy and Psychology

Dr. H. K. Wolfe, Head Professor of Philosophy, will have charge of the work of his department in the summer session this year. For several summers he he been engaged in junior normal work, having been principal at O'Neill. He will offer three courses.

3. **Elementary Psychology** is intended primarily to meet the needs of teachers, and is open to regular students above the second year and to teachers who have taught at least a year. It will include the study of a text book on descriptive psychology, with library readings, and considerable laboratory work on the brain and in experimental psychology. This course is to be made primarily for teachers.

16. **Educational Psychology** is for teachers who have had a semester of elementary psychology. Attention will be given to the chief factors which influence the development of body and mind. Some acquaintance will be gained with the influence of recent psychological investgations on the problems of school work.

17. **Phlosophy of Education** is for superintendents, principals and other teachers of experience. There will be a study of the principles underlying all education, with attempts to apply them to present educational curricula and practices.

In the Department of Philosophy two courses will be offered by Professor Alexander designed especially for students whose primary interest is in history and literature. A course in the "Philosophy of Criticism" will comprise a resume of the development of critical theory, in the field of aesthetics, from ancient to modern times, with special attention to the treatises of Aristotle (the "Poetics"), Longinus ("On the Sublime"), and Lessing ("Laokoon"), together with an analysis of current critical problems. This course is intended especially for students and teachers of literature and the arts. A course in "Humanism" will undertake a general survey of the Greek and the Renaissance ideals of culture—art, education, politics and philosophy being treated in their mutual bearings. This course presupposes some general knowledge of European history. Its aim is to portray the relation of the thought development in Europe to the general progress of civilization, thus serving as an introduction to the more detailed study of the history of philosophy. Students whose primary interest is philosophy, history or education should find it of value. Each of these courses will be given in daily lectures, five weekly; three hours credit.

Physics

Prof. Herbert Brownell will give a **Teachers' Methods Course in Physics, Education 27** (Physics 15). It consists of a discussion in detail of methods and procedure in teaching physics; the selection and adaptation of subject-matter, and of laboratory exercises; the choice of apparatus and supplies; the equipment and efficient administration of the laboratory; the difficuities in the teaching of physics likely to be met in high schools generally. Prerequisite: Physics 1, 2, 3, 4 (three hours each). Four hours attendance, six hours preparation. Two hours credit.

Education 28, Teachers' Laboratory Course in Physics, (Physics 16) is an application of the methods of Physics 15 to those acting as assistants in charge of laboratory sections of the physics classes in the Training School. It requires the care of the laboratory and its supplies, the preparation in advance for the experimental work, assistance to students at the tables, and review of papers handed in .A selected list of quantitative experiments suited to high school work will be completed, using such limited equipment as commonly is to be found in high schools. Eight hours laboratory. Two hours credit.

Education 29, Teachers' Methods Course in Chemistry, (Chemistry 29) includes a review of the subject-matter to be taught as chemistry in high schools; the selection and adaptation of laboratory experiments; supplies, apparatus and equipment for a laboratory; efficient laboratory service, and adjustment of these requirements to the school program; the relation of class room instruction to laboratory work; the choice of text and reference books; the educational aims and methods of instruction. Prerequisite: Chemistry, 1, 2, 3. Four hours attendance, six hours preparation. Two hours credit.

Education 30, Teachers' Laboratory Course in Chemistry, (Chemistry 30) is an application of the methods of Chemistry 29 by those acting as assistants in charge of the laboratory sections of the chemistry classes in the Training School. It involves the care of the laboratory, preparation in advance for the experimental work, assistance to students at the tables, and review of papers handed in; the completion of a required list of experiments suited to high school uses, and personal direction and criticism. Eight hours laboratory. Two hours credit.

Political Science and Sociology

Professor Lucile Eaves will offer the following courses:

7. **Modern Social Betterment Movements.**. Social settlements, welfare work of large employers, efforts to protect the health of the public, housing problems, public parks and playgrounds, and other forms of modern social betterment service will be studied. Three hours credit.

21. **Socialization of Education.** This course will open with a brief summary of plans for the social and ethical training of the individual. The remainder of the time will be devoted to modern movements which are making the public schools more effective means for social progress. Medical inspection, vacation schools, recreation and lecture centers, industrial education, and the playground movement are among the topics cosidered. Two hours credit.

Miss Eaves will also direct properly qualified students in graduate work.

Professor Aylsworth will offer the following courses:

1. **American Government.** Introductory study of salient features in historical development, politcal structure, and actual workings of national, state, and local governments as parts of one whole. National government, first semester. Open to all students. Three hours credit.

11. **English Government and Politics.** A study of the British political system in comparison with our own. Growth of the English constitution, the cabinet-parliamentary organization of government, judicial system and procedure, legislative and administrative methods, the colonial system, political parties and party methods, present day issues of constitutional reform, financial, educational and social-economic legislation. Open to all except freshmen. Two hours credit.

31. **Party Government.** Organization and working of political parties in the United States. Growth of party system; caucus and convention; direct primary; the party committee, "machine," and "boss;" legal control and responsibility of parties; campaign funds; origin and influence of third parties; relative relation, proportional representation and the initiative and referendum to party government; party control of legislation and administration. May be made a three hour course. Open to all except freshmen. Two hours credit.

Rhetoric

Professor Philo M. Buck, Jr., will offer the following courses in Rhetoric during the summer session:

Rhetoric 1. Rhetoric and English Composition, two hours credit.

Rhetoric 2. 1 continued, two hours' credit. (These two courses are required of all freshmen in the Colleges of Arts and Sciences, Agriculture and Engineering.)

Rhetoric 26. The Principles of Narrative Writing —(a continuation of 25, offered last summer), two hours' credit.

Rhetoric 32. The Teaching of Rhetoric and English Composition; two hours' credit.

A Course in Comparative Criticism—a comparative study of several authors of the beginning of the 19th century, intended to give students a foundation for the critical appreciation of literature. Two hours' credit.

There will also be offered a course in advanced grammar for teachers of grammar in high schools.

Zoology and Physiology

Professor Willard will offer courses in these departments. The Course in General Zoology is aimed to furnish general introduction to the subject, but emphasizes the relation of animals to their environment rather than the structural side of the subject. The course covers the principles of biology, the structure and functions of the animal body, the relation of the animal to its surroundings, the distribution of animals, and the general problems of evolution. The Course in Physiology is designed to meet the needs of both grade and high school teachers. It consists of lectures on the general structure and fundamental physiological actions of the various organs of the body, supplemented by practical work in the laboratory, where students have ample opportunity to study the various organs and systems of the body and are given instruction in the preparation of material for demonstration in classes.

The Teachers College High School, an experimental school, located in the University Temple, will be in session and will offer advantages in observation for those in attendance at the summer session. High school teachers will be enabled to study high grade instruction in secondary branches. University students will be permitted to satisfy the requirements for observation work at this time. Experienced secondary teachers will give the instruction. conducting the class-room and laboratory work. Classes will be organized in a large number of secondary courses under the direction of Principal V. G. Mays, of the Lincoln High School.

THE COURSE OF STUDY

Ellery W. Davis.

Some years ago, while casually glancing over the course of study in the arts college of a certain university, I was startled by the remark of a professor standing near. "Don't imagine for a moment," he said, "that that course of study is constructed on any philosophic, scientific or educational principles whatsoever; it is merely a scheme to give every department a chance at the entering freshman." Needless to say, he was right. Fill in the name of the University to suit your convenience.

It is still possible, I suppose, even at the largest and most expensively equipped universities, for a student of high ideals and with the courage to maintain them in the face of multifarious seductions, to secure a well-rounded, broad and yet thorough training; but the chances are against it. For not only are various technical schools diverting larger and larger numbers from such a training, but also, in the arts college itself, all sorts of technical and semi-technical courses and groups are springing up. Those courses get overcrowded which can most successfully appeal to the more immature students: courses which give the most immediate returns in interest or supposed usefulness, courses that are traditionally easy, that are conducted by popular professors, that are well advertised.

Then the departments that are losing out begin agitating for "breadth of culture," which being translated is, "all students should take something of our courses." The curriculum is reformed. The immature freshman aforesaid takes the prescribed number of bites of this and that; but, alas! he cannot bite of everything and there is heard on every hand the voice of the professor crying, "Why not my subject too?"

Nor can one blame him. Is not success deemed proportional to the number of his students on the one hand, and on the other, to the number and variety of the subjects handled by his department? Quantity is easier to estimate than quality and to the average mind far more impressive. Even enthusiasm for advanced work is hard to maintain without a body of students to go along with one; a body which must needs be selected from a larger body in the earlier years.

But with every department clamoring for representation in those earlier years it is obviously well-nigh impossible for any department to get the representation that it wants. Inevitably subjects are pushed back into the high school, into the grammar school, almost, one might say, into the primary grades and the kindergarten. Inevitably, too, they are made easy, attractive, enticing, superficial. Moreover, just as the subjects of the university creep downward toward the kindergarten, so also is there a tendency for the methods of the kindergarten to creep up into the university and for education to become one long bewildering trifling play. Does some teacher or other, some subject or other, really demand work, grind, discipline; that teacher or subject stands in the way of natural, that is, easy growth. Teacher and subject alike are discredited. Wonder is expressed that humanity has so long endured the putting of such restrictions upon the growing mind. The subject must be made easier, the teacher must make himself more popular, or a way must be opened to avoid them.

Sometimes, however, even the popular Professor of a popular subject manifests a desire to get work out of students. One of these was complaining to me just the other day that somehow he couldn't get the persistent effort and the gratifying results that he once could. You see, even a vaudeville artist wants some reaction, some response from his audience. More than once, and at considerable length, this same Professor has in the past maintained that previous training was not necessary for entrance to his classes; that those without it frequently surpassed those who had it. Doubtless he is not alone in a change of heart. Certainly, if present tendencies go on unchecked, there will be many of his brethren to rally around him.

But I doubt if it be necessary to let conditions get still worse before we may begin to better them. There are, so at least it seems to me, opportunities open to us now. Let us consider some of these.

Right at the threshold of our investigation lies the problem of how to secure better entrance preparation. For the most part, to be sure, the matter has been taken out of the hands of the university. We can neither appoint the teachers, nor prescribe the methods of instruction, nor lay out the curriculum. Nay, for even the mild influence which our entrance requirements exert, we are frequently assailed. If there be a University Inspector of Schools, he may serve, in the main to bring school pressure to bear upon the University. "My Inspector," said a University President, "can take a school off the list and yet make the Principal think he is honored." He has to play a double part; it is all a game of give and take. No such system can effectively sift our schools. Therefore, under such a system, we cannot secure

an effective sifting of the boys and girls who are to come to the university.

There is still left in our hands the entrance requirements. Though these vary somewhat from one institution to another, yet, in almost all cases, they are grouped, I believe, around a sound core of English, foreign language (ancient or modern), and mathematics. It is safe to say, I think, that if this core can be preserved, if its texture can be made more firm, and perchance its flavor improved, we need not despair. To the subjects mentioned should be added two years' work in observational science, while with the English and the foreign language should be correlated history. The important point is that three years of effective teaching along these lines could get the better students ready for the university. Why might they not then be allowed to come to us, not waiting for a fourth year; we, on our part, to protect ourselves by an examination as to the quality of the work in these essential subjects. The great body of pupils would go on, doubtless should go on, through the fourth year even though they have the university in mind. These could enter as now without an examination. But there would be at least a chance of the pace being set by those who entered with distinction. Moreover, I believe that such a scheme might put more vim and energy into the high schools and lead in the end to their making greater demands upon the lower grades. Perhaps the foreign language would get started some years earlier. Perhaps easy geometry and algebra, with abundance of drawing, would displace some of the long drawn out and tiresome work in arithmetic. Again, some three year high schools might be led to improve the quality of their three years, rather than to add a fourth. The plan seems to me a natural corollary to President Butler's suggestion, that, while the high schools certified as to the quantity of the work, the universities should examine and pass upon the quality. It might not be wise to throw open this privilege to all schools; here again there is a possible sifting. Understand me, it is not proposed to do four years' work in three, but to do three years' work so well that it is a better preparation for the university than the usual four years' work.

So much for entrance requirements. We also, I believe, still have some control over the requirements for graduation. Such control seemed rapidly passing, but at last a halt has been called. Even at Harvard, election is less free, is qualified by selection from groups. From chaos has been evolved some semblance of order. For once Harvard does not lead, but seems rather to follow with chastened spirit. This is well, for the rest of us are coming of age.

The object of a college education, I take it, is not to train for citizenship, though it should contribute and does contribute to that end. Neither is it to train scholars, though it should and does contribute to that end also. One must not expect too much in a brief four years. The most that can be done is to enable a lot of young men and women to get some understanding of and appreciation for scholarship and scholars. Thus, perchance, when they come to face the problems of later life, they may be somewhat more thoughtful, somewhat more free from prejudice, somewhat more ready to listen to others, and that withal they may have a somewhat greater resourcefulness in usefulness and happiness. Both activity and receptivity are to be cultivated. We wish to train the students for usefulness to be sure, but along with that and above and beyond that, for the deepest and most complete enjoyment of life.

That in College as in high school there should be a sound core of instruction recognizing the great departments of human thought and activity would seem obvious. That here as there quality rather than quantity of work should be encouraged would seem equally obvious. But that which should chiefly distinguish the college work is at once greater breadth and greater thoroughness. The major subject idea is thus a good one. But to take twenty "snaps" in a popular department and mix in a random selection of some thirty or forty other snaps from a dozen or more other repartments is merely burying a grain of wheat in a bushel of chaff. Do I seem to exaggerate the possibilities? Well, in a certain struggling university there are offered some two hundred-eighty-odd two-hour courses and nearly a hundred one-hour. One hour credit for mere attendance on certain courses has been advertized in the calendar. Four and five hour courses are almost exclusively confined to mathematics and the languages. Besides, there are one-hour credits for all sorts of "stunts": for singing in the glee club, for Y. M. C. A. work, for athletics, for debating, for writing an essay, for going on a Saturday excursion with a professor. Just think of the possibilities if only an excursion could be gotten up every Saturday. And departments distinguished in the main for the solid character of their work yet deem it necessary to join in the scramble and offer courses which they themselves call "hot-air."

To begin with, then, might it not be well to cut out all one-hour credit? Could we not say to the freshman, "You shall take at least two five-hour courses," and to the sophomore, "You shall take at least one?" Again, might we not say that no student should pursue for credit more than six courses at one time? Naturally also the total number of hours that a student can register for should be restricted to fifteen.

Furthermore, cannot some restriction be placed on the number of courses that a single department may offer to an undergraduate? Can anything but confusion and bewilderment ensue when each of a dozen departments are parading the alluring titles of scores of courses before the immature and unwary? Would not ten or a dozen courses per department be sufficient to serve all educational cultural needs?

Can we not go further and demand that of these dozen courses a year's work at from three to five hours per week shall be of an introductory fundamental character and a necessary prerequisite to all the rest; a course which not merely lays down broad general principles, but drills the student therein? Perhaps, also, by our groups or otherwise, we can determine that every student shall take this preliminary foundation course in such important departments as English, foreign language, science, history, economics, philosophy. The details of grouping would be determined largely by the conditions, past and present, at each particular university, the most important conditions probably being the individual characteristics of the Professors.

I have suggested fifteen hours as the maximum for which a student should be allowed to register. This is certainly quite sufficient if the work is of proper training value and is well done. But some such plan as the Missouri grade-hour system by which a stu-

dent, though registering for but fifteen hours, can yet earn eighteen hours credit, would still more put the emphasis on quality. Of course, safeguards are necessary, as, for example, a carefully chosen committee to collate, tabulate and publish information as to how the system is being used or abused in the various departments. I understand that at Missouri an improvement in grading has been one of the results of the system.

As a still further incentive to excellence an honor could be offered in a junior student's major subject, the honor conferring the privilege, as at Princeton, of selecting a graduate course in the major subject during the senior year.

Furthermore, might not the privilege, quite generally accorded, of allowing the senior year to be also the first year of a professional course, be likewise confined to those who have won distinction in the preceding years; who have, say, received eighteen hours credit in as much as each of four semesters besides gaining an honor? And might not this same restriction apply even more appropriately to the work for a teacher's certificate? To be sure, there are those who are fearful that our teachers may be made too good for our schools. But let's take the risk and Heaven speed the day when the fear shall be realized!

Would it not be simpler, however, to sweep aside all these and similar devices and merely have each student select his work under the guidance of a wise adviser? May be, one can imagine such a thing as a board of wise advisers; at any rate nearly everyone in a faculty has a definite idea of at least one wise adviser, and there be seniors also who feel themselves wiser than any mere Professor. But somehow the reality falls short of the imagination. The wise adviser is usually one who prefers to work under somewhat definite rules and who confines his advice to getting the student to do likewise. Chosen carefully with such an end in view, a board of advisers can render valuable service and, if their number be not too great, may also be useful in checking up and punishing delinquency.

Naturally, also, the professor in a student's major will be an adviser as to his work in that major. But outside of the major and after the general requirements established by the faculty have been met, it is doubtful if anything is gained by thrusting more or less self-interested advice upon the student. Lay down general principles; see that he follows them with measureable closeness; beyond that leave him alone. Why, you may even let him take one-hour courses and recognized "snaps," just as he goes to the theatre, or plays ball, or becomes a class officer, or joins a fraternity, or does any number of interesting and amusing things. Only let it be recognized as all side play, as avocation not vocation, something done con amore and not because it will be paid for in credit tips.

But the whole scheme is artificial. I grant you. So is civilization artificial. Effective training for it is therefore per force artificial. For underlying civilization is life, which, like steam in an engine, must be guided aright if work is to be well done; while presiding over civilization and enlightening it is the thought and wisdom of the ages; a thought and wisdom that should forever be increased. Therefore, we shall always need those trained to receive it and while profitably enjoying the same, helping both to pass it on to others and, according to their several abilities, adding thereto.

Among these servants of civilization are the faculties and the students of our universities. Doubtless there can be better faculties. Doubtless there can be better prepared students. Doubtless with all our efforts we shall fall far short of realizing our ideals either as to ourselves or as to those under us. But we can do our part. Using such means, such artifices as lie at hand, we can help to train for what we hope is the better civilization of the future. Whatever more or less artificial system is used, we can insist that so far as may be possible, honors and privileges shall not be conferred save as they are earned.

The summer session of the University of Nebraska opens June 14 and lasts for eight weeks.

THE CONTENT OF HIGH SCHOOL BOTANY

By Charles E. Bessey.

I am using this word "content" because it expresses better what I want to talk about than any other single word. Latterly there has arisen some confusion in the minds of some teachers and not a few principals and superintendents in regard to the purpose of botany in the high school. Some appear to have confused botany, which is the science of plants, with agriculture, horticulture, forestry, etc., which are practical applications of the science. This is of course a rather natural mistake, and is to be looked for in those who are not themselves acquainted with the science on the one hand or the application on the other, and it may well be excused especially when we find some botanists, and some agriculturists, horticulturists and foresters making a similar mistake. The botanist who does not know the practical subjects concerned may have hazy ideas as to the boundaries between his science and these same practical subjects; and so the agriculturist, horticulturist or forester as he looks over the field may not be able to define what is his from what belongs to the botanist. But while there is this confusion it must be remembered that it does not exist where both the science, and the practical applications are fully understood, and as I look over the schools of the state and note certain tendencies I am able to see in every case a confirmation of the diagnosis given above.

What then should be the content of high school botany? In other words, just what kind of training is to be included in the study of plants in the high schools? This can be answered by a consideration of the purpose of botany in the school curriculum. This is three-fold, as follows:

1. Properly taught, botany affords a training of the mind, the eye, and the hand. This training gives power.

2. It results in an orderly mass of knowledge with reference to an important part of the world of living things. This knowledge constitutes information and culture.

3. It furnishes a solid foundation upon which may be built such applications as agriculture, horticulture, forestry, etc. This is preparation for wider fields of endeavor.

I wish I could get the ear of every teacher of botany in the schools of the state so that I might show him how to accomplish this three-fold purpose in his classes. I would urge that each of these be given its full share, and that the course should

not be disfigured by over emphasis upon any one to the detriment of the others. Few subjects in the high school can be made to do as much for the pupil as botany if properly handled, while few subjects may be more nearly useless if not presented in the right way.

Now I would not for a moment have it thought that these three things, training, knowledge, and preparation, are of equal value in the education of the pupil. Clearly they should stand in the order given, but as clearly all are essential, and should be included in any organized system of education. But this must not blind us to the fact that the training of mind, and eye, and hand is of the most profound significance and any presentation of botany which in any way minimizes this result falls far short of its possibilities. I think it will be agreed that the second purpose also is worthy of attainment, namely that culture which results from the acquisition of an orderly knowledge of the plants of the world. We must not allow ourselves to measure the value of any step in education by mercenary standards. There is still left in the world an appreciation of culture, of breadth of knowledge, of a familiarity with the higher ideals, and we who are teachers must not be found among those who ignore or forget these higher things. The teacher who is worthy of his position, the teacher who is "called" to be a guide and leader for the young people of the land, must be a disciple of the doctrine of culture.

But the third purpose, preparation, must not be overlooked, nor omitted. Properly presented the subject of botany furnishes a preparation for some of the important vocations in the community and it should be the aim of the teacher to so plan his instruction that this purpose, also, may be realized. Yet here I must remind the reader of the difference between the foundation and the superstructure. I have found some teachers who have thought so exclusively of the superstructure of agriculture, horticulture, etc., that they have neglected to build the foundation. As truly now as nineteen hundred years ago, such houses are "built upon the sand," and like those of old they will fall when the rains descend, and the floods come, and the winds blow. For, my brethren, there will be rains of criticism of our work, with floods of protest, and wild winds of vocal oratory, all of which we ourselves provoke and incite by our lack of pedagogic wisdom.

What now shall the botany of the high school be?

1. It must be an elementary presentation of the science, so as to include its essential features. It must train the pupil in the study of the units of plant life,—the minute cells, with the living matter —protoplasm—which they contain. Here the mind and eye and hand are trained in accuracy of action. In addition it must include such an orderly examination of illustrative examples of plants of all the greater types, from the simpler and more easily comprehended forms to those of intricate and complex structures. To this I have heard the objection that many of the plants so studied are "obscure," or "recondite," or "rarely seen," or "of little importance," etc., etc. Some even have said,—"Why, they are cryptogams, and of no importance to us at all" —all of which simply shows how little some people know about some very common forms of plants. The fact is indisputable that in any locality there are many more kinds of lower plants,—"cryptogams," if you use such an ancient term,—than there are of the higher plants. In other words, if pupils should study the "common plants" they certainly should be put at work on these same cryptogams, for they are the most common of all plants.

2. In addition to an exact study of the essential structures found in plants the beginner should know the more important facts as to how plants act; that is, how they get food, how they use it, how they grow, and how they reproduce their kind. These constitute the physiology of plants, and while the subject as a whole is quite beyond the time or ability of the high school pupil, he should learn with accuracy some of these things, properly selected by a teacher who knows the difference between a curious fact, and an important one.

Summarily stated (I may give the details in another paper, if necessary) the work in high school botany should include the following:—

I. The study of living plant cells. This must be by the actual study of these cells themselves, and not by merely reading about them. The reading is all right, if accompanied by the practical work of securing, preparing, and carefully examining the cells. Of course, since the cells are so very small they must be examined by means of compound microscopes.

II. The study of a carefully selected series of plants, step by step from the simplest to the most complex. Here the greatest care must be exercised in the proper selection of the plants to be used to illustrate the series. Every plant studied is to be made to illustrate some step in the increasing complexity of the plants as we pass from the lower to the higher. No plant is studied for its own sake, but as an illustration of progress in the plant kingdom.

III. The study of the physiology of plants, including their nutrition, growth and reproduction. This should be done in connection with the work in I and II above.

When properly done these studies will result in (1) such a training as will give power; (2) such a mass of arranged knowledge as may well be called culture; and (3) such a solid and scientific foundation as will constitute a good preparation for the pursuit of the various applications as in agriculture, horticulture, floriculture, plant breeding, forestry, etc.

FUNDAMENTAL CONCEPTS OF ALGEBRA AND GEOMETRY

Professor W. C. Brenke.

At the last meeting of the N .S. T. A. the Section in Mathematics decided to undertake some reading for the double purpose of adding to our stock of information and of establishing a common ground for the discussion of topics of mutual interest, independently of a formal annual meeting. It was further decided to begin by reading the recently published book of Professor J. W. Young, the title of which is at the head of this note, and the undersigned agreed to formulate some questions bearing on the subject.

Presumably some of those in attendance at the meeting have already secured copies of the book. Any other teachers, whether members of the N. S. T. A. or not, who desire to enter on this work, would do well to send for the volume at once. The publishers are the MacMillan Company, New York, and the price is $1.40, post-paid. The book is written in simple narrative style, and presents in an interesting way precisely those ideas which underlie the foundation of mathematics and with which every

teacher of the subject should have at least some acquaintance.

Let us assume that the first two lectures at least have been read carefully. The following points might then be suggested for critical consideration:

1. Page 2, lines 12-14. In connection with this definition discuss Mechanics, Physics, Botany, Logic.
2. Page 3, lines 3-4. What else may form the basis of a science?
3. Page 3, lines 21-22. In what sense is a mathematical proposition true?
4. Page 5, lines 14-16. In what respect does psychology take precedence of logic in modern elementary texts on geometry?
5. Page 5, lines 23-24. Give specific suggestions for accomplishing this in beginning the study of geometry.
6. Page 9, lines 25-26. Would this definition of "point" cover such concepts as "color" or "truth"? Every pupil has a definite mental image corresponding to the word "point." How did he arrive at it?
7. Page 9, last line. Criticise this definition of "line".
8. Page 12, lines 1-5. Examine carefully the postulates and axioms on pages 10-11. Does this distinction really hold there?
9. Page 21, lines 12-15. Discuss in this connection Euclid's theorem: "Lines parallel to the same line are parallel to each other".
10. Page 21, lines 23-24. How do these orthogonal spherical surfaces correspond to our planes?
11. Page 25, line 12. What is intuitional knowledge?

In the next issue of this journal Lectures III and IV will be taken up.

SEED CORN SPECIALS.

Professor C. W. Pugsley.

On Feb. 26th four special trains started from Omaha and Lincoln over the various railroads in the state of Nebraska carrying a corps of twenty lecturers furnished by the University of Nebraska, preaching the gospel of good seed corn.

This propaganda was started a few weeks ago by the Department of Agricultural Extension, instigated by reports coming in from the institute workers out in the field. The reports were all unanimous in the opinion that the seed corn situation in the state of Nebraska was the worst ever experienced.

This was brought on by the delayed growing season because of the lack of rains early, and by the early freeze in November. It is probably true that not more than from ten to fifty per cent of the corn in the cribs throughout the state will grow.

At the corn shows held at institutes throughout the season, it is the opinion of the judges, and it has been shown by the testers wherever tests have been made, that at no show will more than sixty per cent of the seed brought in by the farmers germinate.

Farmers who have picked out their seed early and have an extremely early variety of corn, probably have corn that will germinate from ninety per cent on up. Those who have old corn of last year's crop will doubtless be able to find good seed, but those who are depending upon the average crop of the state to furnish them seed for the coming year will be obliged to use very careful selection if they secure seed that will grow.

It is very important that the seed should be picked out near home. Tests carried on at the Nebraska Station show that corn which is grown from seed secured within a radius of ten miles of the Station has produced on the average 3.2 bushels more per acre than has corn which has been produced from seed secured fifty to sixty miles from the Station, while that which has been grown from seed produced within ten miles has yielded nine bushels more per acre than corn grown from seed grown in Illinois, Indiana and Iowa.

It is thought that there is plenty of corn in the state to plant all of the acreage if the farmers will pick out the smaller and flintier ears from the earlier maturing types of corn in their own neighborhood. This gospel was preached on the train, together with methods of testing seed and methods of growing seed for other years.

There will be a special summer session of the Teachers College high school opening June 10. This will be under the direction of Principal Mays of the Lincoln high school.

TRAMPING FOR EARLY FLOWERS

By Charles E. Bessey

As soon as the snow is gone, and the warm weather has set in, it will be well to take a preliminary tramp over the higher prairies to catch the earliest plants in bloom. You must have your eyes open, and especially sharpened for the little plants that venture to open their tiny flowers in protected places. It is astonishing how soon some of the early spring plants can push out their flowers. I remember many years ago that one Spring in central Iowa the snow had remained until late in April, when it went off with a rush, and in less than forty-eight hours from wintry weather I found the little blossoms of the Shepherd's Purse smiling in the warm air of a protected nook. And so in Nebraska I have often found the saucy face of the Dandelion peeping from some warm spot on the University campus when there were still the remnants of snowbanks not far away. So when you go searching for the early prairie flowers do not overlook the semi-domesticated plants in our lawns and door yards, and begin looking for them very early in the season, or you will miss the first ones that come into bloom.

A. Very Early Prairie Flowers

1. Low, smooth plants, with very small whitish flowers.....Wild Parsley (**Cymopterus**)
2. Low, hairy plants, with very small whitish flowers.....Lady's Tobacco (**Antennaria**)
   (Children often chew the leaves into tough wads which they liken to tobacco quids. Apparently these plants are quite harmless.)
3. Low, smooth plants, with white, lily-like flowers .....Spring Lilies (**Erythronium**)
   (These very pretty flowers are really lilies, although often erroneously called "Dog's-tooth Violets." The name here given is so appropriate that it should replace the other ugly and inappropriate one.)
4. Grass-like plants, with terminal clusters of very small, chaffy yellow flowers..... .....Early Sedges (**Carex**)
5. Low plants with heart-shaped leaves, and single nodding, hooded blue or purple flowers .....Violets (**Viola**)
6. Low plants with compound leaves with many small leaflets, and clusters of irregular purple flowers.....Buffalo Peas (**Astragalus**)

(Later in the Spring these plants produce thick edible plum-like pods, which have given them the additional name of "Ground Plums.")

B. Very Early Lawn Flowers

1. Small plants, with very small white flowers in terminal clusters...Shepherd's Purse (Capsella)
   (Later in the season these plants may grow to be a foot or so high and wide, scarcely resembling the small plants of early Spring.)
2. Plants with jagged leaves, and large yellow flowers .....Dandelions (Taraxacum)
   (These may blossom more or less continuously all summer long, even until late in the year.)

C. Flowers White

I. Flowers irregular, that is, not with regular whorled petals of equal size.
   1. Low plants, with bi-saccate flowers, hanging in elongated clusters.....
      .....Dutchman's Breeches (Dicentra)
      (Found only in the forests of eastern Nebraska.)

II. Flowers regular, rather large, 1 inch or more across.
   1. Low plants, 5 to 10 inches high.
      a. Juice red-milky; flower single.....
         .....Bloodroot (Sanguinaria)
         (Only in the extreme eastern Nebraska.)
      b. Juicy not milky.
         i. Stem wanting: leaves radical: flowers clustered. Strawberries (Fragaria)
            (Grow wild all over the prairies.)
         ii. Stem erect with a whorl of 3 leaves, bearing a single central flower
            .....Early Wake Robin (Trillium)
            (Only in extreme eastern Nebraska.)
   2. Taller plants, a foot or so high.
      a. Flowers with corolla-like calyx and no corolla .....Anemony (Anemone)
   3. Large plants, 2 to 4 feet high, with long sharp leaves.....Dagger-weed (Yucca)
      (In central and western Nebraska, where it is known as Soapweed.)

III. Flowers regular, small, clustered.
   1. Low shrubs with pyramidal flower clusters.....New Jersey Tea (Ceanothus)
   2. Taller shrubs with flat-topped flower clusters.....Cornels (Cornus)
      (Often called "Dogwood," for no good reason.)

D. Flowers Yellow

I. Flowers irregular, with a single lateral sack.
   1. Petals spreading: flower hooded.....
      ....Yellow Violet (Viola)
   2. Petals not spreading: flower narrow.....
      ..... Corydalis (Corydalis)

II. Flowers composed of a narrow tube.
   1. Petals spreading....Puccoon (Lithospermum)
      (We have several species growing on the open prairies.)
   2. Petals not spreading: very pale yellow...
      .....Gromwell (Onosmodium)

III. Flower more or less funnel shaped, not widely open.
   1. Leaves radical, trifoliate, small.....
      .....Yellow Sorrel (Oxalis)
      (Commonly known also as "Sheep Sorrel.")
   2. Leaves on the stems, simple, 2 to 5 inches long.
      a. Flower deep yellow: fruits dry.....
         ..... Bellworts (Uvularia)
      b. Flower very light yellow: fruit a berry
         .....Soloman's Seal (Salomonia)

IV. Flowers wide-open, the petals spreading.
   1. Plants mostly smooth, more spreading...
      ..... Buttercups (Ranunculus)
      (Usually growing on wet land.)
   2. Plants mostly hairy, more erect.....
      .....Cinqfoils (Potentilla)
      (Usually growing on dry land.)

V. "Flower" composed of many small tubular yellow flowers, the whole resembling a simple flower .....Ragworts (Senecio)

E. Flowers Red and Pink

1. Shrubs with prickly stems and leaves: flowers large, single.....Wild Rose (Rosa)
2. Herbs with long, narrow, simple leaves, and clusters of small, regular flowers.....
   .....Wild Onions (Allium)
   (Common on moist lands.)
3. Herbs with broad, divided leaves, and a few hanging, 5-tubed flowers.....
   .....Wild Columbine (Aquilegia)

F. Flowers Blue

1. Erect, slender, grass-like plants, with blue (or white) 6-petaled flowers.....
   .....Blue-eyed Grass (Sisyrinchium)
   (In early Spring on moist prairies. It is really a simple kind of Iris instead of a grass.)
2. Leafy-stemmed plants, 10 to 12 inches high, with tubular flower in clusters.....
   .....Sweet William (Phlox)
   (In woodlands of eastern Nebraska.)

G. Flowers Purple

I. Flowers irregular.
   1. Plants low, spreading: leaves compound, with many small leaflets: flowers clustered ½ inch long.....Vetches (Vicia)
   2. Plant tall: flower cluster elongated, wand like: leaves radiately lobed.....
      .....Larkspurs (Delphinium)

II. Flowers regular or nearly so.
   1. Flowers very small, on a thick stalk which is covered by a green-purple hood.....
      .....Jack-in-the-Pulpit (Arisaema)
   2. Flowers an inch or so across, wide open.
      a. Petals 3: leaves narrow.....
         ..... Spiderworts (Tradescantia)
      b. Petals 5: leaves broad and radiately lobed..... Wild Geranium (Geranium)
   3. Flowers funnel-shaped; leaflets 3 on each leaf.....Purple Sorrel (Oxalis)
   4. Flowers with the 5 petals bent sharply backward.....Shooting Star (Dodecatheon)
      (In western Nebraska.)
   5. Flowers tubular, somewhat irregular at the mouth: perfect stamens, only 4....
      .....Beard Tongue (Pentstemon)
   6. "Flowers" compound, of many small flowers, and resembling a simple flower, 1½ to 2 inches across: plants low.....
      .....Purple Daisy (Townsendia)
      (In central and western Nebraska, where it is abundant.)

EDUCATIONAL THEORY AND PRACTICE

By Dean Fordyce

V. Presentation of the New Lesson.

The period set apart for the meeting of the teacher and the class is comomnly called the "recitation period." The term, "recitation," is justly in disrepute among good teachers, for it implies the reciting or reproduction of assigned material from books. The class period in many schools is given to this purely reproductive process. From ten to twenty pages are assigned in the text, the pupils appear in the class and the teacher asks questions that call for a reproduction of the text. Pupils are, by this method, encouraged to memorize verbatim the words of the book in order that they may reproduce them, in response to questions asked by the teacher. Learning means fitting or assimilating new thoughts into those already in the mind. This reproduction of book matter does not do this. In order to have assimilation the matter of the printed page must be worked over by the pupil and so reorganized as to fit into his special way of thinking and feeling. It should then be clothed in his own words. The new matter thus wrought over becomes his, bears the stamp of his own individuality. It would be far better to call the period set apart for the conference the "class period" with the understanding that this period is to be a social situation where pupils meet for the purpose of discussing the salient facts found in the matter assigned rather than the reproduction of them. To this end the teacher must come to the class with a clearly defined aim and her means of realizing this aim together with her mode of procedure well in hand. This procedure must include a few large, thought-provoking questions. Some such question as these rarely fail to provoke thinking and hearty discussions—"What is the greatest thought of this lesson, William?" "Why do you think so?" "Do you agree with him, Marie?" "Why not?" "How is this thought best supported by the author," etc.

Both the class and the study period should be devoted largely to sifting, weighing, supplementing and restating in the language of the pupil the thoughts of the author rather than to memorization. Even language and mathematics may be liberated from the dull routine of verbal reproduction by this mode of procedure. One of the most fruitful means of breaking up the prevalent method of reproduction is to ask the pupil to bring to class on a few sheets of paper the most valuable thoughts of the assignment elaborated and worded in his own style. It requires more thinking and more patient toil to reduce the thought to a few pages of note than to many. The method of taking up the assigned material is here important: In the German public schools, the teacher gives the entire class hour to instruction, to the development of the facts of the new lesson. The pupils then go to their seats and work over the facts, thus elaborated in the class. This German method of procedure in the class hour is well illustrated in Dr. De Garmo's "Essentials of Method, Part III," in which he gives a few lesson types as followed by Dr. Rein in the training school at Jena and Dr. Frick of the Frankeschen Stiftungen in Halle. This method, known as the conversational or developmental is that by which the pupil gets his first knowledge of the new lesson from the mouth of the teacher. Among Americans it is common to assign a few problems or pages requiring the pupil to gain in independent study his first knowledge from the book. The class period is then given to a catechism of the matter assigned in the book. This inclines to verbal reproduction of book matter. In Germany the teacher teaches, in America she hears a recitation. In both cases we have an extreme that should be avoided. The Germans carry the instructional method to such an extreme as leaves the pupil without initiative; in America verbal memory plays such an exaggerated part as to stand in the way of developing initiative on the part of the pupil. An ideal method comes from merging the two. There should be sufficient questioning to give assurance that each pupil is actively engaged in the study of assigned topics and sufficient teaching to elaborate the material studied. Prominent among the instructional processes is the elaboration by the supplement of outside material drawn from the daily life of the pupil, from the library, from maps, diagrams, pictures, etc. Again, the class work is incomplete without such types of class activities as give opportunity for motor expression on the part of the class. Such provision is afforded in the writing, the drawing, the diagraming at the board; in modeling, dramatizing, and manual work of various kinds. It is found that these means of motor expression give not only zest, motive, interest to the class period, but afford the best possible means of assuring permanency of the matter dealt with. Emphasis must be placed on that method of procedure that holds each pupil individually for the lesson. One of the most prevalent errors among teachers is that of treating the class as a unit and of relieving the individual of responsibility, e. g. "What is the subject of this sentence?" "Who can tell?" "Hands?" It may be possible by this unskilful yet common method of questioning to get from a class of twenty as many as forty correct answers to as many questions and yet have no single individual in the class able to answer more than one question out of ten. Obviusly such technique is bad. Good questions are individual ones, as for example, "Decline this word in both singular and plural, Marie." "Is she right in her declension, John?" etc. A good teacher distributes her questions to all the class rather than confining them to the class as a whole or to a few bright pupils inclined to do all the work.

Another weakness common in the class period is that found in the teacher who does most of the talking. It is the function of the teacher to guide, inspire, supplement, restate. She certainly, in this, should not occupy more than half the time.

Recapitulating, the class period should be a social situation in which the class and the teacher together take up the new matter and so discuss it, sift it, weigh it, elaborate it, reconstruct it as to give it a new structure which each individual pupil may build into his own mode of thinking, feeling and expression. Catechising should not be so much for testing what the class know as for stimulating to that effort which will extend the boundary of their knowledge, and as will make them dissatisfied with the present boundaries until they have been extended. The efficiency is to be judged in terms of the activity of the members of the class rather than in terms of the teacher's activity. Many a teacher grows through teaching, tires through it, wears out through it, because she is doing not only her own work, but that of her pupils. The efficient teacher is the one who divides the activity of the class period with the pupils and who is generous enough to give them the larger part.

NEBRASKA HIGH-SCHOOL DEBATING LEAGUE

The fifth annual contests of the Nebraska High-School Debating League began on February 16 to continue until the middle of May when representatives of the twelve schools which win the first honors in the twelve districts will compete on High-School Fete Day for the state championship.

Seventy-one schools are members of the league this year. A new district—the Northeastern—has been formed in the territory formerly covered by the North-Central where six new members made the North-Central much too large. In the Northeastern District are Creighton, Hartington, Pierce, Randolph, and Wayne. The director is Supt. J. H. Kemp of Wayne. As director of the Central District, Supt. W. H. Simons of Friend has been appointed to succeed Supt. E. Clippinger of Sutton, which school will not be an active member this year.

To aid schools with limited library facilities to get a wider range of information on the "closed-shop" question under discussion, the Debating and Public Discussion Division of the University Extension Department has furnished abstracts, prepared under the supervision of Professor Fogg, of some half hundred books and articles listed in Bibliography I (in the fourth annual "Bulletin" of the League) and in Bibliography II, distributed in December.

Sixty debates will be necessary to decide the championship in the twelve districts. In addition to these contests, those schools which do not get the decision in the first series will continue practice by pairing off and deciding the district third honors. Several inter-district practice debates are also arranged.

The programme of the first series of debates, as far as it has been announced, is as follows:

First Series of District Debates

Central District
Supt. W. H. Simons, Friend, Director

Geneva (affirmative)-York. At Geneva, Friday afternoon, Feb. 23.
Stromsburg-Osceola. At Stromsburg, March 8.
Friend-(Winner of Stromsburg-Osceola debate).
Exeter-

Eastern District.
Supt. I. N. Clark, Weeping Water, Director.

South Omaha-Fremont. At South Omaha, Feb. 23.
Weeping Water-Plattsmouth. At Weeping Water, March 1.
Blair-

East-Central District
Supt. J. A. Woodard, Havelock, Director.

University Place-Ashland. At University Place, Feb. 16.
Wilber-Havelock. At Wilber, March 8.
Lincoln-Teachers' College High-School, March 15.
Cook-

Northern District.
Supt. Celia Gorby, O'Neill, Director

Atkinson-Valentine. At Atkinson, Feb. 23.
O'Neill-(Winner of the Atkinson-Valentine debate).

North-Central District
Supt. L. B. Oberkotter, Madison, Director

Members: Albion, Fullerton, Hooper, Madison, Neligh, Newman Grove.

Northeastern District
Supt. J. H. Kemp, Wayne, Director

Randolph-Hartington. At Randolph, March 8.
Creighton-Pierce. At Creighton, March 8.
Wayne-(Winner of Hartington-Randolph debate).

Northwestern District
Principal J. A. Hanna, Sidney, Director

Chadron-Crawford. At Chadron, Feb. 23.
Scottsbluff-Minatare. At Scottsbluff, March 1.
Alliance-Sidney. At Alliance, Feb. 29.
Gordon-Rushville. At Gordon.

Southern District
Supt. J. A. Eastwood, Diller, Director

Edgar-Blue Hill. At Edgar, Feb. 28.
Ohiowa-Western. At Ohiowa, Feb. 23.
Hardy-Diller. At Hardy, March 1.
Hastings-Fairfield. Won by Hastings by default.

Southeastern District
Supt. George E. Martin, Nebraska City, Director

Auburn-Nebraska City. At Nebraska City, March 1.
Beatrice-Wymore. At Wymore, March 1.
Falls City-Stella.
Tecumseh-Humboldt.
Pawnee City-Table Rock.

Southwestern District
Supt. C. F. White, Trenton, Director

Beaver City-Oxford. At Beaver City, Feb. 23.
Minden-Franklin. At Minden.
McCook-Trenton. At McCook, March 1.
Stratton-

Western District
Supt. H. E. Bradford, Kearney, Director

North Platte-Kearney. At North Platte, April.

West-Central District
Supt. C. F. Jones, Ord, Director

St. Paul-Ord. At St. Paul, March 1.
Broken Bow-Merna.

Inter-District Debates

Blair-Ashland. At Blair, Feb. 23.
Wymore-Diller. At Wymore, Feb. 22.

East-Central District

University Place-Ashland. At University Place, Feb. 26. Won by Ashland, two-to-one. Judges: Deputy County Attorney G. E. Hager, Lincoln; Prof. H. B. Latimer, Nebraska Wesleyan University; Supt. A. J. Wilson, West Lincoln.

ZOOLOGY IN THE HIGH SCHOOLS

In this article, I shall endeavor to give a few suggestions that I have found practical in the teaching of High School Zoology. As in any other science, there are two ways necessary to acquire this subject, the laboratory work and the recitation.

As to the manner of recitation, the lecture method appeals to me more because no text book can bring out all necessary points. The teacher should gather all the best texts written on Zoology and then write the lectures on each subject, embodying all the main thoughts of these several books. In giving these to the pupils, the University method cannot be used. It must be told to them in more story than lecture form, using the question method at frequent intervals. It is not hard to make them feel that these beautiful and interesting animal descriptions are as wonderful to them as childhood fairy tales.

Many believe that Zoology should be taught according to the old rule "from the known to the unknown." Linville and Kelley's text begins with Insecta and then works backward to Protoza and later continues from Insecta on to Mammalia. I have no doubt that this arrangement is a good one for some schools, but I have found the other method very successful—that of starting with the lowest animals and continuing up the scale until Mammalia is reached. Evolution can be taught so much more clearly.

For laboratory work, I like the same plan. The study of the ameba, even though it is an animal the pupils have probably never seen nor heard of before, makes an ideal foundation for all the higher forms of Zoology. Especially does the method work well in schools where each student has the use of a microscope, and when the classes are small enough so that the teacher can give them individual instruction. We use Theo. H. Scheffer's loose leaf laboratory book and have found it excellent. It describes each animal clearly and gives several exercises for the pupils to draw and name parts. These exercises are usually quite broad and the minor details must be brought out by the teacher. One excellent feature about this book is that it describes a large number of animals generally instead of describing a few minutely. The latter way should be left for University Zoology.

One of the ideas brought out at the State Teachers' Association was that pupils should be allowed to study as many animals alive and in their native homes as possible. This brings up two subdivisions of laboratory work, the busy work and the field work.

The busy work consists in preparing articles which will be necessary for field trips. A great many ideas can be derived from Hodge's Nature Study. Let the boys and girls make the insect nets together. The boys can do the bending of the wire, etc., while the girls can sew the nets. Killing bottles are also needed and each pupil should make one. Instead of mounting their insect trophies on a board with pins stuck through their bodies, students should be taught to preserve their specimens in insect cases. They can make these by cutting, with glass cutters, old window panes into the right size and by using cigar box wood between the pieces of glass and sealing the box by passe partout. After the insects are mounted, the top of the case may be pasted on and the pupil has a memento which will last. Aquaria are always needed, and, if there is time, it is fine drill to let the pupils make these. Now the Zoology class is well prepared for its field trips.

These should consist of a trip to a field to catch butterflies for dissection purposes later; a trip to a stream to catch fish (the nets can be used for fish as well as for insects); a trip to a park to gather butterflies, dragon flies, etc.; and several bird trips.

By adding the busy work and the field trips, Zoology can be made the most interesting of all sciences.

Mrs. Arlene Buchan Phillips,
Teacher Zoology, Lincoln High School.

NORMAL TRAINING IN THE SCHOOL OF AGRICULTURE

The School of Agriculture has arranged for a course in Normal Training, beginning next October. This is identical with the course in Nebraska high schools. Graduates of this course will receive county certificates, and will be prepared to teach real agriculture in rural and village communities.

The instruction of a pedagogical nature will be given in the fourth year of the school course. This year has been made elective, with three different lines open to both students of agriculture and students of home economics. Provision is made for technical courses in each line, for those who wish the school to be a finishing school. There is a preparatory course for those who are looking forward to university work in other lines. Then there is the course for teachers.

The normal training group for the fourth year in home economics consists of home economics, English, pedagogy, and reviews. The normal training group for the fourth year in agriculture consists of English, American history, pedagogy, and reviews. Provision is made for other academic subjects and for the technical work in agriculture and home economics in the other three years of the course.

Superintendent George E. Martin, of Nebraska City, has been selected to take charge of the new course. Superintendent Martin is one of the most successful school men of Nebraska, and the announcement of his appointment is sufficient guarantee of the success of the work, and is a measure of the importance placed upon the course by University authorities.

UNIVERSITY EXTENSION

Miss Estelle Morrison, of the Department of Rhetoric, has completed the course in Rhetoric I and is now working upon Rhetoric II. Several students have finished the work in Rhetoric 1 in a most satisfactory manner. The experience thus far has demonstrated the fact that Rhetoric is one of the subjects most easily adapted to correspondence instruction.

The correspondence courses in Soils and Field Crops are having a large enrollment and are proving very helpful to high school instructors. Provision has been made to send out the outlines and questions at a cost of one dollar to those who have not time to carry the work. These outlines should be in the hands of every teacher of agriculture in Nebraska.

Miss Alfa Warton, of the Department of University Extension, has completed a successful course of instruction in Reading and Public Speaking in the high schools of Blue Hill, Edgar, and Nelson. She has begun a course at Ashland and Friend.

Several new courses in correspondence work are being prepared for the year 1912-13. Special provision is being made for the needs of city teachers in Nebraska, desiring to work for city certification. By combining correspondence instruction with the work of the summer session, it will be possible for any teacher to meet the provisions of the new certification law without inconvenience and without loss of time in the school year.

USE OF BUILDINGS.

A rule of the Board of Regents governing the use of University buildings for other than university purposes has been announced as follows:

"When not in use for strictly university purposes, rooms may be scheduled for the use of student organizations generally. It is the policy of the University to promote the fullest and freest discussion of matters which relate to the public welfare, at the same time avoiding the use of its property for the partisan promotion of any subject which is under controversy. Hence political or other meetings designed to influence elections directly are prohibited in university buildings. This shall not be interpreted as forbidding a discussion of public topics in an academic way, nor shall it be interpreted as preventing students from organizing freely to promote their political ideas, providing such meetings as they may hold are not conducted on university premises."

The University of Nebraska

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ALUMNI EDITION

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William Roberts Jackson, A. M.

Formerly State Superintendent
of Public Instruction

WILLIAM ROBERTS JACKSON

The three most prominent elements of character in the life and career of William R. Jackson, in my estimate of him, were integrity, industry, and charity.

His integrity was recognized by Governor Aldrich, who appointed him food commissioner—a position second to none under our state government. Professor Jackson was a candidate on the democratic ticket for the office of State Superintendent of Public Instruction (a position which he had filled with honor to himself for two terms some years before) in the same campaign when Governor Aldrich was selected as the chief executive of the state on the republican ticket. Such an appointment is without precedent in the political history of Nebraska, but Governor Aldrich wanted a man whom the interests could neither bribe nor intimidate, and so the selection was made on merit alone, fitness being the supreme test. It is regretted that the untimely death of Professor Jackson has deprive the people of this state of a service second only to that of Dr. Harvey W. Wiley for the nation.

His administration as State Superintendent of Public Instruction stands second to none in the educational history of the state. It was during Superintendent W. R. Jackson's administration (1899) that he handed down his famous decision relative to the reading of the Bible in the public schools. This case was carried through the district court to the supreme court, and was finally passed upon by our highest judicial tribunal during Superintendent Fowler's first term, sustaining Mr. Jackson's ruling on every point. The controversy on this question and the ultimate decision of the court gave Mr. Jackson a national reputation among the educators of the United States.

He was an untiring worker. This trait was eloquently emphasized by Chancellor Emeritus Huntington in his oration at the funeral of Professor Jackson. The hard work Dean Jackson did for the Wesleyan University, especially in the summer sessions, cost him at least ten years of his life, but he lived long by living well. He lived in deeds, not years; in thoughts, not in figures on the dial.

His charity was indeed marked. I never heard him speak an unkind word of any person. If others criticised, he prudently rebuked or else remained silent—if criticism were warranted. His was a charity that suffered long and was kind; that thought no evil; that was not puffed up; that could endure all things.

J. L. McBRIEN.

THE DEVELOPMENT OF MEDICAL EDUCATION IN THE UNITED STATES

By Robert H. Wolcott

This treatment of the subject is based upon the report on Medical Education in the United States and Canada, published in 1910 by the Carnegie Foundation for the Advancement of Teaching. The facts, however, are handled from a somewhat different point of view than that taken in this report.

The history of medical education in the United States may be divided into several clearly defined periods. During the first of these a system of apprenticeship existed. A boy who was destined to a medical career was at an early age placed with some reputable practitioner, to whom his services were successively menial, pharmaceutical, and professional. As the stipulated term of the apprenticeship drew toward its close, he was allowed to take part in the daily practice of his preceptor, and obeyed hurried summons in the night. The quality of his training varied with the capacity and conscientiousness of the master. During this time ambitious students wishing to increase their store of knowledge resorted to the hospitals and lecture halls of the great medical centers of Europe, and returning, shared with their less fortunate fellows the experience gained.

Through this period the population of the country was scattered along the Atlantic seaboard, the largest cities were yet small, and the colleges of the country were still struggling to obtain a foothold. But toward the end of the 18th century, with the growth of population and with the development of the colleges and universities, conditions arose which made possible the second step in the development of medical education.

As early as 1750, it is recorded, informal classes and demonstrations were given, mainly in anatomy, Philadelphia being then the chief center of medical interest. In that city in 1762 was given a course of lectures in midwifery, by William Shippen the younger, and in the following autumn was added to these a series of anatomical lectures. In 1765 there was created, in connection with the College of Philadelphia, a professorship in the theory and practice of medicine, filled by John Morgan; and from these courses and this professorship developed the first American medical college. Thirteen years previously the Pennsylvania Hospital had been established, and a connection was developed which allowed the students of this college access to the one hundred and thirty patients in the hospital wards, and permitted of the development of bedside instruction in medicine. Dr. Thomas Bond became the first professor of clinical medicine. "Our first medical school was thus soundly conceived as organically part of an institution of learning, and intimately connected with a large public hospital." It should be noted, however, that the instruction aimed to supplement and not to supplant the apprenticeship. A bachelor's degree might be granted on the basis of a satisfactory apprenticeship, a "competent knowledge" of Latin, mathematics, natural and experimental philosophy, and the completion of a prescribed curriculum with hospital attendance for one year.

Before the outbreak of the Revolution, the medical school just referred to was prosperously started on its career. The war of course caused interruption and confusion. A rival appeared in the medical department of the University of Pennsylvania, but in 1791 the two institutions were united. By the close of the century three more medical colleges had been started, one in New York, the medical department of Kings College, a second the medical department of Harvard College, and the third the medical department of Dartmouth College. In the few years following the beginning of the 19th century, other institutions of learning also created medical departments.

But conditions were changing. The country was growing rapidly in population, and the limit of civilization was moving swiftly westward. As the tide of emigration passed beyond the Alleghanies and the development of the great Mississippi Valley began, the area of the territory occupied by the nation increased with such rapidity, and the population also grew so rapidly, that the existing schools failed to supply the demand for physicians. Colleges and universities multiplied, it is true, but the struggle for existence was so severe as to preclude the establish-

ment of professional departments, and thus arose at nearly all centers of population, proprietary medical schools, so-called because members of the faculty were also owners and proprietors. These were established in imitation of the London schools, but those schools neither conferred the medical degree nor gave the right to practice, while the American proprietary school did both. The results would not have been so serious had the apprenticeship system remained unimpaired. But with the growth of our common school system the apprenticeship gradually disappeared. Instead a prospective medical student went directly from the high school or even the grammar school into a medical college, which frequently lacked both the proper laboratories in which to develop a foundation for medicine and hospitals in which to teach its application. The schools became money-making enterprises. Professors multiplied, the instruction became almost exclusively didactic, standards declined and even disappeared, and the country was flooded with incompetent physicians. But in spite of this, and as a result of individual effort, medicine progressed, and the roll of the profession bore at all times the names of many physicians of high attainment and of enthusiastic and inspiring teachers.

Between 1810 and 1840, twenty-six new medical schools sprang up; between 1840 and 1876, forty-seven more. All told, the United States and Canada have produced in little more than a century more than four hundred and fifty medical schools, mostly of low grade. During this period even the university schools swerved from their moorings and tended to fall to the low common level. The rapidity with which the country developed and the constantly increasing demand for physicians led to no movement against these proprietary schools and the evils they had introduced until well within the last decade, though as far back as 1827 the voice of protest was raised. It is also true that for a half century individual schools have been struggling toward higher standards, and more recently individual licensing boards have striven for a higher practice requirement. However, as the territory occupied by the nation has become filled up and as conditions, especially in the older parts, have become more stable, these evils have themselves become constantly more apparent. Since the beginning of the present century, a vigorous campaign of reformation has been inaugurated, radical in its character and national in its scope.

The organized agencies at work in this movement have been the Association of American Medical Colleges and the Council on Medical Education of the American Medical Association, and the efforts of these two organizations have been made potent through the assistance furnished by the Carnegie Foundation for the Advancement of Teaching. The report of Mr. Flexner, based upon a careful examination of all medical schools in this country and in Canada and conducted during a period of several years, brought together in definite form a wealth of detail in regard to actual conditions which startled not only the public but the medical profession itself. This report was a severe arraignment of many medical colleges in the United States and a scathing denunciation of existing conditions. Its strictures were resented in many quarters and it met with violent opposition. But reflection has shown the need of such heroic treatment. Not all of the recommendations made in the report have been acceptable to medical educators, but the reform movement has progressed along the lines laid down and gathering force as it has developed, this movement has also enlisted the support of the state examining and licensing boards, so that now all agencies having to do with the training of physicians and their admission to practice are working in harmony, toward the development of higher ideals and a nobler and more enlightened profession.

The Flexner report emphasized particularly the evil of over-production of physicians, due in part to the continued increase in the number of medical colleges after the nation in its expension had reached the limit of its territorial boundary, and in part to the low admission and course requirements of medical colleges, which excluded no one, however unfit. The weakness shown by the medical schools may be stated in terms of low entrance requirements, deficient laboratory facilities for the adequate teaching of the fundamental sciences, and lack of clinical opportunities, the presence of which might have compensated for the loss of the apprenticeship. The initial point of attack was the entrance requirement, and this was followed by a campaign for the standardization of laboratory courses. So satisfactory has been the progress in these directions that time only is now needed to secure the desired results and all influences have been united in a movement toward the development of the clinical portion of the curriculum.

What has been stated of the weakness of medical schools applies more particularly to the proprietary schools, in the case of which the weakness is fundamental. These schools have had neither the resources with which to equip the necessary laboratories nor funds with which to pay trained instructors, and if hospital connections have existed the students have not been trained sufficiently to make proper use of the facilities afforded. It has become evident that the only schools which can give the proper sort of laboratory instruction with the present development of the laboratory branches are schools having access to the laboratories of a strong university, or independent schools with sufficient endowment to make possible the creation of laboratories adequate to give instruction of university grade. Mergers and death have diminished the number of weak schools, and the total of one hundred and fifty-five in existence at the beginning of 1910 has been reduced to one hundred and twenty. Those which have survived have generally sought affiliation with some neighboring university, or have undertaken raising of an endowment for the establishment and equipment of the necessary laboratories.

Thus we are preparing to enter the fourth period in the logical development of a field which has at all times reflected the character of its environment. The first was the period of apprenticeship, the only system possible while the population of the colonies was small and widely scattered and without strongly established institutions. The second was marked by the development of college and university schools which supplemented the training of the apprentice; this period corresponded with the establishment of our political institutions and the beginning of a national life. The third period accompanied the era of tremendous territorial expansion now drawing to a close; during this time medical education was characterized by the development of the proprietary school and suffered from the evils attendant upon the unsettled social conditions which have until recently

existed. During this time apprenticeship disappeared without the development of anything to take its place. Now as we enter the fourth period, which is being preceded by a stage of adjustment shared by all our social institutions, we may forecast a period of co-operation and conservation as a result of which the medical college, an integral part of a well organized educational system, utilizing to the utmost the opportunities offered by the high school and academic college on the one hand and the hospital on the other, and with an intensive, logically arranged, carefully graded, and well balanced curriculum, will graduate men worthy of service in a community in which scientific efficiency is the only scale by which physical service to society is measured.

THE NATIONAL EDUCATION ASSOCIATION TO BE HELD AT CHICAGO.

The executive committee has finally decided to hold the fiftieth annual convention of the National Education Association in Chicago, Illinois, July 6-12, 1912. The time and place of holding the annual meeting is left to the executive committee, though it is customary for the board of directors to take a preferential vote at the preceding meeting. The informal vote of the board of directors is always followed unless some unforseen circumstance arises which makes a change seem desirable. At San Francisco the board of directors voted to go to St. Paul, Minnesota, instead of Chicago with the understanding that the usual N. E. A. railroad rates would be given. Later the railroads refused to make good the promises of St. Paul. The matter was taken up again with the board of directors through correspondence and decided in favor of Chicago. This change in plan has delayed the announcement of the time and place of holding the meeting much beyond the usual and necessitates increased activity on the part of the officers and members.

The decision to hold the next meeting in Chicago is considered a most fortunate one by many of the members. Chicago is nearer the center of the active membership than any other city able to entertain the Association. It has been twenty-five years since the association met at Chicago. It was royally entertained then and will be more royally entertained now. The educational people of Chicago have guaranteed not less than eight thousand advance associate memberships, a larger number than could be assured by any other city desiring the meeting. Chicago is an educational center, second only to New York in size, is easy of access, and has unlimited hotel facilities. It is on the great lakes which give reduced fare for the association, and is within easy reach of many desirable summer resorts.

Nebraskans are specially pleased that the association is to be held in Chicago and are planning in large numbers to attend the fiftieth annual convention of the N. E. A. At San Francisco the delegation from Nebraska was divided between St. Paul and Chicago, the majority being in favor of St. Paul, but at the superintendence meeting in St. Louis the thought had changed in favor of Chicago. Many of the Nebraska teachers have come from eastern states, principally Ohio, Indiana, Illinois, Iowa; and to attend the meeting at Chicago will give them an opportunity to visit once more the old home before all the relatives are gone. Besides, to hold the convention at Chicago means a larger attendance and Nebraskans have always shown deep interest in the meetings of the N. E. A. The president of the N. E. A., Carroll G. Pearse, is a former Nebraskan; Chancellor Samuel Avery, of the University of Nebraska, is president of the Department of Higher Education, and many more Nebraskans or former Nebraskans are connected with the program.

The attendance of the association varies from year to year from eight to thirty-five thousand, depending somewhat upon the location. The indications are favorable to a large attendance this year and Nebraska will send one of its largest delegations. To attend such a meeting made up of the best and strongest of those with whom you train is a valuable education in itself.

Nebraska made a fine showing at the meeting of the Department of Superintendence in St. Louis, the delegation was the largest, and the spirit the best of any similar meeting in the past. Ten new active members from the state joined the National Education Association at that meeting: Clinton M. Barr, superintendent of schools, Hastings; Ella Brown, state normal school, Kearney; M. E. Crozier, superintendent of schools, Norfolk; J. H. Kemp, superintendent of schools, Wayne; Dorothea Kolls, county superintendent of schools, Grand Island; Edward Marcellus, superintendent of schools, Crete; Elmer G. Miller, supervisor public schools, Omaha; Frank S. Perdue, with Macmillan Company, Lincoln; Jessie B. Pyrtle, county superintendent of schools, Beatrice; Wilson Tout, superintendent of schools, North Platte. Since the San Francisco meeting in July twenty new active members from Nebraska have joined the association, and it is expected that by the end of next July the number will have been increased to one hundred. Are you a progressive teacher and not an active member of the N. E. A.? If not, why not? Later in the year it is hoped that the school papers of Nebraska will publish a complete list of the active members of the state as found in the roster of active members of the N. E. A. If you are interested in this greatest of educational associations you should see that your name is in the list. Any active member can tell you how to proceed in order to become active, and there are one hundred of them in Nebraska.

We are planning to go in a body from Nebraska to Chicago, leaving on a special train Friday evening, July 5, arriving at Chicago Saturday forenoon, the first day of the meeting. It is not fully decided over which road we shall go, however, owing to the many feeders throughout the state of the Burlington, it is most likely that you will go with the special train over that road. Others who wish to go individually or in smaller groups can arrange with the different roads as they see fit. It is probable that the different railroads will send shortly to interested parties folders and special literature showing the many side trips that can be made with little extra cost. Nebraska will have headquarters in the Auditorium or Congress hotels, Chicago, July 6-12, 1912. All educational institutions of the state that desire to be represented at headquarters should furnish appropriate banners and pennants.

For further information inquire of the director of the N. E. A. for Nebraska, G. W. A. Luckey, University of Nebraska, Lincoln.

UNIVERSITY Y. M. C. A. CAFETERIA

The student cafeteria of the University Y. M. C. A. opened its doors for business in the Temple building on March 12. It occupies the large room in the northeast corner on the first floor of the building, where the University book store formerly had its quarters. A large serving counter with all the latest conveniences for the work has been located on the east side of the room. One hundred students will be able to find seats at the tables.

An official statement from the Chancellor's office sets forth the conditions under which the cafeteria will be operated and a list of prices. It is as follows:

"The University of Nebraska shall provide equipment and retain title to the same. It may resume possession at any time the Regents may direct.

"This equipment shall be loaned to the University Y. M. C. A., to be used in conducting a cafeteria for the benefit of University students.

"Subject to the orders of the Board of Regents, a committee of five men, appointed by the Y. M. C. A. and approved by the Regents, shall have complete control of the cafeteria and its management. The tenure of office of this committee or any member thereof may be terminated at any time by the University Y. M. C. A. or by the Board of Regents.

"The members of this committee shall receive no compensation for their services; nor shall any profit accrue from the cafeteria to any organization or individual. Should the cafeteria be discontinued, all property, including cash on hand, shall revert to the University of Nebraska.

"The following have been named as members of the committee in charge:

"A. A. Reed, chairman, L. J. Marsh, D. M. Rogers, B. L. Paine, Chancellor Avery.

"Ralph Orr is business manager and T. A. Williams, assistant in the University finance office, is treasurer. All money paid out will be voucher-drawn on him, and his accounts will at all times be open to inspection by the public."

"All accounts of the cafeteria shall at all times be open to public inspection at the finance office of the University.

"The cafeteria shall be open to students, officers, employes and alumni of the University. It is not intended for the use of the general public.

"In employing labor, efficiency will be the first consideration; but other things being equal, students whose homes are in Nebraska will be given first consideration.

"Only creamery butter, non-frozen meat, high grade coffee, and other first class materials will be used. The following are some of the prices. These will be raised or lowered as experience may show to be necessary to carry out the Regents' wish to provide wholesome food for students at cost of supplies and labor:

List of Prices.

"Roast beef, 7 cents; oyster stew, 7 cents; potatoes, 4 cents; peas, 4 cents; corn, 4 cents; soups, 2 cents; bread (without butter), 1 cent; rolls, 1 cent; doughnuts, 1 cent; pies, 4 cents; coffee (without cream), 2 cents; macaroni and cheese, 4 cents; peaches, 5 cents; prunes, 3 cents; pineapple, 5 cents; gooseberries, 5 cents; oatmeal (without cream), 2 cents; rice (without cream), 2 cents; butter, 1 cent; cream, 2 cents; sugar, water, tomato catsup and other accessories, free."

UNIVERSITY PROGRESS

By E. M. Rutledge, Registrar

For the purpose of acquainting alumni, former students, and the general public who maintain an active interest in the University, but cannot avail themselves of a careful perusal of the general catalog with a knowledge of present day conditions, I submit a brief resume of the advancement made along the line of entrance requirements and increased facilities for instruction. A brief statement of this nature will not permit of detail and comparison will be left to the individual reader.

By an act of the legislature of 1909, reorganizing the colleges and schools of the University, the Graduate School was elevated to the Graduate College, the Teachers College erected and the Colleges of Engineering and Agriculture established to replace the old Industrial College. The College of Literature, Science and the Arts became the College of Arts and Sciences. These colleges, together with the two then existing, viz: Law and Medicine, making seven in all; the Schools of Agriculture and Fine Arts, and the Affiliated School of Music comprised the instructional components of the University.

A movement, which for a number of years had been gathering force, to elevate the general requirements for admission, both secondary and collegiate, to the various colleges of the University, now came to maturity. A uniform table of entrance requirements has been established for all undergraduate colleges. For full admission to any of the undergraduate colleges the candidate must present 30 credit points from an accredited secondary school of which he must be a graduate. Conditional admission is permitted to graduates of an accredited school on presentation of a minimum of 24 credit points. All candidates who are not graduates of an accredited secondary school, or of a school of similar rank in another state, are required to pass entrance examinations for admission.

Prior to September, 1910, students were admitted conditionally on 22 points and to full standing on 28 points, which may or may not have been accomplished in an accredited school. No entrance examinations were held.

On September 1, 1912, the minimum entrance requirement will be increased from 24 to 28 entrance points to graduates of accredited secondary schools. All other regular candidates will be asked to take entrance examination for admission. The table of requirements which is now maintained is practically the same as that adopted by the National Education Association at its meeting in San Francisco, California, last summer.

Registration in the Summer Session does not now differ from that of the regular academic year. All candidates for admission are obliged to present the minimum entrance requirement or to meet the condition for "Adult Special" registration. The latter classification is now based upon mature age and preparation irregular but equivalent to that of the minimum requirement for entrance.

The course in the School of Agriculture at the University Farm has now been increased from three to four years offering full technical high school instruction. Next year a University preparatory group and a normal training group will be added. The former lays the foundation for advance technical and experimental work in agricultural subjects. Graduates of the latter group will be well prepared for the teaching of agriculture in the grades and in rural schools. Graduates of this school without other secondary preparation are admitted to the College of Agriculture only.

The arrangement for admitting students of the Conservatory of Music to University classes has been abandoned. Such students must meet the regular entrance requirements.

The University now maintains an Extension Department, which is endeavoring to offer instruction to those who are not able to seek it in residence. The courses now offered in correspondence cover over a considerable range and effort is made to extend this to all departments as far as practicable.

A School of Pharmacy offering two-, three-, and four-year courses has been opened in the Medical College. This has come about through a general demand for technically trained men and women in this profession.

But the demand for higher classification has not been confined to entrance alone. Two of the undergraduate colleges have raised their standards. To enter the College of Law regularly a student must now present one year of academic work in addition to full entrance credit. The one year of academic work preparatory to the four-year course in the College of Medicine has been increased to two years. To recieve the degree of Doctor of Medicine all students shall have had six years of college instruction, giving them cultural opportunities as well as technical training.

In response to an increasing demand a six-year combined academic-engineering course has been arranged for those students who desire purely cultural studies along with their professional work. Upon completion of the first four years the degree of Bachelor of Arts is conferred and the scientific degree in Engineering in six years.

The Teachers College now offers a strictly professional course of wide instruction in educational subjects. Students of other colleges elect this work in their Junior and Senior years while retaining their identity with the other college. Upon graduation, in addition to the Bachelor's degree from the former college, the University Teachers Diploma and Teachers Certificates are granted by the Teachers College. A Teachers Training High School has been established in connection with this College which affords splendid experience in observation and practice methods. Four years of high school instruction which are fully accredited to the University are offered.

Despite the raising of entrance requirements and college standards, the increase in attendance continues uniformly from year to year. The total number registered in all departments of the University for the past academic year was 4,624 students. Ten years ago it numbered 2,256. Ten years prior to that 570 students were in attendance. The total figures for 1911-1912 will be considerably less than that of last year. However, this does not indicate necessarily a falling off in registration. With the severing of the affiliation with the Conservatory of Music several hundred students in that institution, which in former years have been counted, will be excluded from our total this year. Registration figures of the current academic year have not yet been compiled, therefore direct comparison is not possible. Careful estimate, however, indicates that in spite of general unfavorable conditions in the city, due to the typhoid fever epidemic, at the opening of the academic year any decrease that may

in actual numbers, we have not suffered a loss in bona fide University students.

Effort has been made to relieve the hitherto long and tedious process of registration in the adoption, at the initial suggestion of the Chancellor, of a card system. After three years of operation and development it is now possible for a student whose credentials have been evaluated previously to complete the details of registration in a given hour of his own selection.

The University is also endeavoring to be of service to the student in a pecuniary way. A bookstore, established by the Board of Regents, furnishes text-books to students at actual cost. This results in a considerable saving, especially to students of the professional colleges. A cafeteria has recently been established in the University Temple which will materially reduce the living expense. It is under the direction of the Y. M. C. A., but is open to both men and women. A special dining room is being fitted up for the convenience of the young women of the University. This cafeteria will be in operation during the Summer Session.

Our real problem is not the acquiring of new students, but the accommodation of those who come to us desiring to take advantage of the educational opportunities which their state offers them. The University has practically reached the limit of its capacity on the city campus for the accommodation of a greater number of students. What to do with them until the legislature can increase our facilities is the question now confronting the University authorities. The new buildings for the College of Law on the city campus and the College of Medicine at Omaha will be a slight relief, but not in proportion to the demands.

MAKING A HERBARIUM

Charles E. Bessey.

In answer to many inquiries as to herbarium making, the following suggestions are made to teachers of Botany in High Schools and Academies:

1. **The specimens should be complete;** including, in case of a flowering plant, the roots, the whole stem (with its leaves all retained), the flowers, and, if possible, the fruits and seeds. The practice in some schools of pressing a single flower and leaf for a specimen is ridiculous. Where a plant is more than fifteen inches long it can be bent in the middle, or, if necessary, it may be bent two or three times, or selected typical parts of it can be used. It is much better to have a very large specimen than a very small and incomplete one.

2. **In drying the specimen,** ordinary blotting paper is the best, but soft felt paper is almost as good. It should be cut about 12 by 18 inches. Put the specimens between these sheets, and place a weight of a few pounds on the pile of specimens and blotters. Change the blotters once a day or so, in order to avoid moulding. Very good specimens may be made by using newspapers for blotters.

3. **Every specimen is to be mounted** upon strong white paper. The standard size throughout this country is a single, unfolded sheet, exactly 11½ by 16½ inches. Such paper costs about $6.00 per thousand sheets. Do not use "herbarium books," or the little sheets supplied by some dealers; use only the standard size of paper.

4. **Use liquid glue** reduced to the proper consistency men, including every part, then lay it carefully upon a sheet of mounting paper, put a newspaper over it and press it lightly until the glue is dry. Attach a neat label (printed ones look better) at the lower right hand corner of the sheet. Put specimens of only one species on each sheet, but several specimens of the same species may be mounted on the same sheet if desired.

5. **Portfolio.** For the personal use of students the sheets of paper with the mounted plans attached should be put into suitable portfolio. These may be bought in Lincoln for about 35 to 40 cents each.

6. **Exchange of Specimens.** Where the school board supplies the mounting paper, the rule should be that at least one-half of all the specimens should be put into the school herbarium. This will soon give the school a large collection of good specimens, many of which are duplicates. At the end of the year let each school make out a list of the specimens it has to spare, and by correspondence make exchanges with other schools. First-class specimens, properly mounted on standard paper, may also be exchanged for rare plants through the Botanical Department of the State University. In this way many new plants may be added to the collection.

7. **The High School Herbarium.** The collection of specimens thus brought together must be the property of the High School, and should be used for study and comparison. In the course of a few years it can be increased by judicious exchanges so as to make it a very useful addition to the facilities for botanical instruction. A tight "herbarium case," consisting of pigeon-holes twelve inches wide, four or five inches high and eighteen inches deep, should be provided for the herbarium; and the specimens should be arranged in it in proper scientific order, so that they may be found easily. Plans for such a case can be furnished by the Department of Botany at cost on application.

For further information, address Department of Botany, The University of Nebraska, Lincoln, Nebraska.

FIRE IN UNIVERSITY MUSEUM.

Fire caused by defective wiring did about $10,000 damage to the valuable collections housed in the University museum March 6 and damaged the building itself to the extent of about $5,000. Although the loss is serious and the University will require a long time to entirely recover from it, none of the many valuable specimens which were damaged or destroyed are impossible to replace. The task in some instances, however, will necessitate long and arduous search, no duplicates being purchasable. One regrettable feature of the loss is that, although the damaged and ruined specimens may be replaced with others, the infinite amount of time and skill given by Dr. Barbour and other professors in collecting and mounting them has all come to naught. Dr. Barbour also sustained a personal loss of property amounting to about $2,000.

If the museum had had an iron instead of a wooden stairway, the loss would not have occurred, as all the rest of the building is fireproof. The new buildings to be erected soon will have iron stairways as well as being fireproof otherwise.

As soon as sufficient funds are acquired, an addition will be built to the museum. A circular iron stairway is to be installed soon.

NEBRASKA HIGH-SCHOOL DEBATING LEAGUE

The first series of the fifth annual contests of the Nebraska High-School Debating League is nearly finished. In one of the twelve districts,—the Northern—the championship has been decided, O'Neill winning from Atkinson which had won from Valentine.

Higher general level of work—greater evenness of the contests—is indicated by the notable preponderance of split decisions by judges selected especially for their competency and fairness. Eighteen of the first twenty-six verdicts were divided. In 1910-1911 only twenty-six of the entire forty-seven were split.

Record crowds are reported from several districts. The 550 at the Wymore-Beatrice debate at Wymore—which included 150 by special train from Wymore,—is said to be the largest audience that ever attended a high-school debate in southeastern Nebraska. At South Omaha 550, including many labor unionists, heard the discussion with Fremont on the closed shop.

Reports of the twenty-six contests reported follow, the school named first arguing on the affirmative of the League question, "Resolved, that the movement of organized labor for the closed shop should receive the support of public opinion."

Central District

Supt. W. H. Simons, Friend, Director.

Geneva-York. At York, Feb. 22. Won by Geneva, two-to-one. Judges: Chancellor Samuel Avery, University of Nebraska; Supt. R. C. Harris, Fairbury; Department Commander A. M. Trimble, Lincoln. Presiding, President W. H. Clemmons, Fremont Normal College.

Friend-Osceola. At Friend, March 8. Won by Friend, two-to-one. Judges: Prof. M. M. Fogg, University of Nebraska; Mr. Will Owen Jones, "The Nebraska State Journal"; Prof. C. A. Robbins, University of Nebraska. Presiding, Supt. W. H. Simons, Friend.

Eastern District

Supt. I. N. Clark, Weeping Water, Nebraska.

South Omaha—Fremont. At South Omaha, March 1. Won by South Omaha, two-to-one. Judges: James H. Adams, Omaha; C. E. Reed, Omaha; Edward R. Burke, Bellevue. Presiding, Judge A. L. Sutton.

Weeping Water-Plattsmouth. At Weeping Water, March 6. Won by Weeping Water, two-to-one. Judges: L. E. Gruver, Esq., University Place; Prof. Edwin Maxey, University of Nebraska; Director A. E. Sheldon, Legislative Reference Library. Presiding, Rev. J. H. Andress.

East Central District

Supt. J. A. Woodard, Havelock, Director.

University Place-Ashland. At University Place, Feb. 16. Won by Ashland, two-to-one. Judges: George E. Hager, Esq., Lincoln; Prof. H. B. Latimer, Nebraska Wesleyan University; Supt. A. K. Wilson, West Lincoln.

Wilber-Havelock. At Wilber, March 8. Won by Havelock, two-to-one. Judges: Prof. L. E. Aylesworth, University of Nebraska; Prof. Edwin Maxey, University of Nebraska; Prof. G. A. Stephens, University of Nebraska. Presiding, Supt. B. E. Dill.

Lincoln-Teachers College High School. At Lincoln High School, March 14. Won by Lincoln, two-to-one. Judges: Prof. M. M. Fogg, University of Nebraska; Judge C. B. Letton, Supreme Court; Judge A. S. Tibbetts, Lincoln. Presiding, Principal V. L. Mays.

Northern District

Supt. Celia Gorby, O'Neill, Director.

Atkinson-Valentine. At Atkinson, Feb. 23. Won by Atkinson, unanimous. Judges: J. B. Gilson, Newport; Principal G. V. Oberlander, Stuart; H. L. Thomas, Stuart. Presiding, Supt. Walter Plybon, Atkinson.

O'Neill-Atkinson. At O'Neill, March 15. Won by O'Neill, two-to-one. Judges: Supt. M. E. Crozier, Norfolk; W. E. Scott, Esq., Atkinson; E. H. Whelan, Esq., O'Neill.

North Central District

Supt. L. B. Oberkotter, Madison, Director.

Hooper-Fullerton. At Hooper, March 8. Won by Fullerton, unanimous. Judges: Supt. N. M. Graham, Fullerton; Prof. C. E. Persinger, University of Nebraska; Prof. J. J. Ray, Fremont Normal College. Presiding, Stephens Brown, Hooper.

Northeastern District

Supt. J. H. Kemp, Wayne, Director.

Randolph-Hartington. At Randolph, March 8. Won by Randolph, two-to-one. Judges: Prof. E. B. Conant, University of Nebraska; Prof. J. T. House, Wayne Normal School; Prof. Guernsey Jones, University of Nebraska. Presiding, G. W. Wiltse, Esq.

Pierce-Creighton. At Creighton, March 15. Won by Creighton, two-to-one. Judges: Rev. Edwin Booth, Norfolk; A. G. Cole, Esq., Plainview; Frederick Marshall, Niobrara. Presiding, Judge Calvin Keller.

Northwestern District

Principal J. A. Hanna, Sidney, Director

Alliance-Sidney. At Alliance, Feb. 29. Won by Sidney, two-to-one. Judges: County Supt. C. L. Alden, Kimball; Supt. R. M. Marrs, Bridgeport; J. W. Welch, Omaha. Presiding, Rev. E. P. Brown.

Chadron-Crawford. At Chadron, March 1. Won by Chadron, two-to-one. Judes: Dean W. T. Stockdale, Chadron Normal School; Roscoe White, Esq., Rushville; W. W. Wood, Esq., Alliance.

Gordon-Rushville. At Gordon, March 1. Won by Gordon, unanimous. Judges: Supt. G. W. Eaton, Valentine; Supt. B. T. Hess, Hay Springs; Prof. Charles Philpott, Chadron Normal School. Presiding, Supt. Earl M. Kendall.

Scottsbluff-Minatare. At Scottsbluff, March 1. Won by Minatare, two-to-one. Judges: Supt. H. J. Mummau, Gering; Supt. L. R. Wright, Gering; Rev. H. H. Utterback, Gering. Presiding, Supt. W. L. Greenslit.

Southern District

Supt. J. A. Eastwood, Diller, Director

Ohiowa-Western. At Ohiowa, Feb. 23. Won by Western, unanimous. Judges: Principal F. S. Copeland, Bruning; Principal O. L. Stephens, Fairbury; Principal E. L. Taylor, Belvidere. Presiding, Supt. P. W. Evans.

Edgar-Blue Hill. At Edgar, Feb. 29. Won by Blue Hill, two-to-one. Judges: J. E. Talbot, Fairfield; Supt. A. D. Thompson, Nelson; Supt. L. R. Trout, DeWitt.

Hardy-Diller. At Diller, March 1. Won by Diller, unanimous. Judges: Jean A. Colbry, Beatrice; George Crocker, Lincoln; Prof. Edwin Maxey, University of Nebraska. Presiding, Principal T. O. Moyer.

Southeastern District

Supt. G. E. Martin, Nebraska City, Director

Nebraska City-Auburn. At Nebraska City, March 1. Won by Auburn, two-to-one. Judges: Prof. E. L. Hinman, University of Nebraska; Prof. Guernsey Jones, University of Nebraska; Judge A. S. Tibbetts, Lincoln. Presiding, Supt. G. E. Martin.

Wymore-Beatrice. At Wymore, March 1. Won by Wymore, two-to-one. Judges: Prof. E. B. Conant, University of Nebraska; Prof. C. E. Persinger, Uni-

versity of Nebraska; Prof. G. O. Virtue, University of Nebraska. Presiding, Dr. S. E. Yoder.

Falls City-Stella. At Stella, March 9. Won by Falls City, two-to-one. Judges: Prof. Edwin Maxey, University of Nebraska; Director A. E. Sheldon, University of Nebraska; Prof. C. W. Taylor, Teachers College High School. Presiding, Ralph Clark, Esq.

Southwestern District

Supt. C. F. White, Trenton, Director.

Beaver City-Oxford. At Beaver City, Feb. 23. Won by Oxford, unanimous. Judges: Supt. P. B. Bentley, Alma; Supt. R. D. Cresap, Edison; Supt. A. L. Gash, Wilsonville.

McCook-Trenton. At McCook, March 1. Won by McCook, unanimous. Judges: Prof. S. M. Dunlap, Hastings; Principal J. C. Mitchell, Hastings; Prof. G. N. Porter, Kearney Normal School. Presiding, County Supt. C. L. Anderson, Trenton.

West Central District

Supt. C. S. Jones, Ord, Director

St. Paul-Ord. At St. Paul, March 1. Won by St. Paul, two-to-one. Judges: Rev. S. H. Buell, Grand Island; Rev. A. F. Ernst, Grand Island; P. T. Wells, Grand Island. Presiding, Supt. J. O. Lyne.

Merna-Broken Bow. At Broken Bow, March 15. Won by Merna, unanimous. Judges: J. W. Morrow, Grand Island; Prof. G. N. Porter, Kearney Normal School; Prof. H. O. Sutton, Kearney, Normal School.

EDUCATIONAL THEORY AND PRACTICE

By Dean Fordyce

VI. Assignment

The object of the assignment is to prepare the pupil for unsupervised study, either at home or during the preparation periods of the school room. This study has two aims, first to gather and assimilate new knowledge, and second to work out the unsolved problems of the preceding class period; each lesson is thus organically connected with the materials and problems of the preceding. No phase of the teaching process needs more careful direction, for it is during the periods of independent study that the pupil gains the power of self-direction, of initiative, by which he can in time continue his study unaided by the teacher. The real function of the teacher is to put before the pupil the right kind and the right amount of work, to direct him to such helps as will lead him in doing this, and to proceed in such way that her presence may be a stimulus to encourage him to such continued efforts as will form those habits of study that will make it possible for the teacher gradually to withdraw to the background and to leave the pupil to work independently. The period at which the pupil can safely proceed unguided is rarely reached before the sophomore year in college. Till then such assignments as "Take for your next lesson pp. 4-10" are very inadequate.

The amount of time that should be given to the assignment varies with the nature of the material assigned. If this be of such nature as to call for an application of principles or laws formulated in the lesson just closing, the succeeding class period may be given to such exercises as will ingrain and give persistence to these principles or laws. Here the time for the assignment should be sufficient clearly to outline the material intended for the drill and application of the generalizations under consideration. If, on the other hand, the succeeding lesson deals with entirely new material, the time required for the assignment should be sufficient to introduce the new matter with such a study of it as will place clearly before the class the problems involved and to deal with it in such way as to create that interest in these problems that will lead the pupils to a desire for a continued study of them; the amount of time demanded here is dependent upon the relations between the problems and the capacity of the pupil. If the problems involve much that is new and difficult half the period may be well spent in the assignment and study; if these problems are simple a few minutes may suffice.

The assignment presupposes on the part of the teacher a knowledge of the capacity of the pupils and the ability to weigh the difficulties and values of the matter assigned, for if the matter assigned is too difficult for the capacity of the pupil, or if the assigncent is too long, which is often the case, the pupil is driven either to study under such pressure as induces the cramming process or he becomes discouraged, makes but a superficial study of the material, or gives up entirely. Nor should the assignment be too easy, for if so, it does not call forth that sustained effort that gives growth. Properly assigned, it is adapted to the ability of the pupil and the time allotted for its study. The assignments should be by problems and topics rather than by artificial units, pages, etc. In nearly all cases the material indicated for the succeeding lesson should be written by the pupils in a note book kept for this purpose; otherwise, it is likely to be misunderstood or to be forgotten before the pupil enters upon its study.

NEW BUILDING AT UNIVERSITY FARM

The plans for the new building at the University Farm have been completed and the contract let, to begin work immediately on the opening of spring. It was expected the excavation for this building would be completed before this date, but weather conditions have prevented. The building will be 140 feet long, 65 feet wide, and three stories high, and will be built of pressed brick, in harmony with the buildings already on the Farm campus. The building will have concrete floors and be practically fireproof. It will have a mechanical system of ventilation, which it is hoped will be an improvement on the older buildings.

The building when completed will house the Department of Agricultural Botany on the third floor, the Department of Entomology and general classrooms on the second floor, the Department of Horticulture on the first floor. The basement will be used for general and departmental purposes. This building with its equipment will cost $85,000 and it is hoped will be completed within a year from this date.

Applications for men to fill positions in other schools are being received frequently at the College of Agriculture. Within the last two weeks requests for a teacher of agriculture in the Normal School at Lewiston, Idaho; a teacher of agriculture in a high school in Minnesota, and a position with the Bureau of Plant Industry on an experimental farm in Colorado, have been received. These positions are worth about $1,200 each. Persons interested in the same can secure information from the Dean of the College of Agriculture.

PHI BETA KAPPA HONORS.

Thirty-eight members of the senior class of the college of arts and sciences were honored with election to Phi Beta Kappa this year. Announcement of this unusually large number thus rewarded for excellence in scholarship was made at convocation on Phi Beta Kappa day, March 14. Folowing is the list of those who won the coveted key:

Frieda Elizabeth Arnold, Lincoln; Edna Biles, Pender; Alice Orintha Chambers, West Point; Leroy Benjamin Clark, Lincoln; Verna Grace Coleman; Wauneta Emma Cook; Wilma Ruth Crossley, Kearney; Celia Grace Davis; Frances Aileen Dunham; Rebecca Finley Eversole, Elm Creek; Donald Folsom, Lincoln; Ralph Wallace Garrett, Madison; Mabelle Frances Gowing, Lincoln; Florence Marie Grimm, Lincoln; Lloyd Dickson Halstead, Tecumseh; Emma Evelyn Hanthorn, Lincoln; Thomas Jean Hargreaves, Wymore; Irma Herman, Lincoln; Searle Francis Holmes, Omaha; Mariel Theresa Jones, Lincoln; Nellie Content Kimberley, Lincoln; Margaret Anita Kunkel, Osceola; Leta Blanche Linch, Cornelia Frances Lindsey, Lincoln; Jean Elizabeth McGahey, Lincoln; Elsie Forest Mathews, Ruth Munger, Lincoln; Emma Josephine Oak; Anna Charlotte Pagels, Beatrice; Walter Robert Power, Beatrice; Ethel Jane Purinton, Wilcox; Ethel Augusta Scott, Kearney; Marjorie Cornelia Selleck, Lincoln; Lora Viola Smith, Lincoln; Hazel Martha Stanton, Polk; Grace Isabel Walker, Douglas; Esther Warner, Lincoln; Alvina Caroline Wilhelmina Zumwinkel, Utica.

UNIVERSITY Y. M. C. A.

On April 1st the Young Men's Christian Association of the University of Nebraska begins a new year under the leadership of new men in many of the student offices. In many ways the outlook is encouraging and indicative of a year of splendid accomplishments. The opening of the cafeteria, aside from being of material assistance to scores and hundreds of men, is making the Temple a very different place. The lobby that was formerly deserted except when men came in for some meeting, is now alive with men and women meeting on common ground. The Association rooms are being used increasingly as a rest, reading and study headquarters. Many men who room too far away to get home during the day, and who find the library crowded, use these rooms as a place to spend their vacant periods in reading and study or wholesome fellowship.

There are two features of the new year's policy that seem worthy of special mention. The old lines of distinction between men who differ regarding religious beliefs are being very largely erased. The Association is standing for all phases of worthwhile service and all men who believe in mutual helpfulness are finding a place to serve. It involves no surrender of principle on either side for men to remain loyal to their own individual belief or disbelief of time-honored creeds and yet work side by side for the good of the University and its student life. The other phase of the new policy is increased emphasis on the obligation of the Association to the church. Too often men who were active in the home church lose interest when they go to college. It is the first purpose of the Association to seek to ally every man with the church of his choice, and to encourage him in giving it his best support. Instead of going back to his life work after graduation rusted and out of sympathy with church activities, he should return with the advantages of four years of experience in such service. The Association leaders believe their efforts can be put to no more important work, and already results are manifest.

Other departments and phases of the work are enlarging and broadening, and with the opening of another school year will come great opportunities for helpfulness and real service. With the continued loyal support of the friends of the Association, it will go from strength to strength in active endeavor along lines of Christian service.

GOING AWAY FROM HOME

The following discussion, by President Jordan, of Chicago University, will be of interest to young people:

"The question whether it is wise to continue one's education at home or to carry it on elsewhere is always a very important one, and can never be settled on the ground of general principles. It is often wise, I think, for a young man to leave home for these purposes, for a variety of reasons. He meets new conditions; he is thrown largely on his own responsibilities; he learns to cope with circumstances as they arise without relying upon constant home support and advice. This should develop manly qualities and strengthen the character.

"There is another side to the picture. Away from home the temptations are relatively greater, and it is easy for a young man whose character is not well formed to fall into habits which are unfortunate, or worse. After all, however, this is true of all life throughout. One must learn at an early age to discriminate between the wise and the unwise, the right and the wrong, the sane and the silly. It is only by this experience, and often by the experience of many blunders, that one comes to real strength of character.

"There is another consideration which often makes it wise for a student to finish his school days away from the home environment. By going to a distance, especially by going to an institution which is not altogether local, he is apt to measure himself against others from all parts of the country. He works under new surroundings; he gets to be less provincial; he finds out that there are many things beyond his narrow home horizon. He gets to be more broadly tolerant. Under all circumstances, however, the student should carry with him from home certain home ideals that ought never to be lost. He is to remember that right and wrong are the same everywhere; that the clean and the unclean are the same everywhere; and that he cannot afford, merely because he is away from home restrictions and from those who know him, to lose his touch on the high things of life."

PRESENT STATUS OF EDUCATION AS A SCIENCE

Dean Fordyce of the Teachers College attended the session of the National Society of College Teachers of Education which convened at St. Louis. He reports that there were at this meeting about one hundred educators from the various higher institutions of learning in this country. The theme of the Association four years ago was Observation and Practice Teaching in College and University Departments of Education: each annual session since then has dwelt on some phase of experimental education.

The deliberations of these meetings have done much to place education in the category of applied sciences and to arouse its workers to activity in the

lines of research. Courses in experimental education have been in progress for several years at Berlin Geissen, Konigsberg, Wurzburg, Breslau, Halle, Jena, Leipzig and Manchester in the Old Country.

For a number of years departments of education in this country were content to confine themselves to the purely theoretical aspects of teaching. The first step taken in this country in the practical line was that of coupling observation work with the courses in theoretical education. Superintendents and principals of public schools regarded this as a great step in advance, but still insisted that university trained teachers lacked that intimate acquaintance with the practical aspects of education necessary for teaching. It was found that these college bred teachers were very inefficient until they had passed thru about two years of experimental service by which they learned the art of class instruction.

During the last decade departments thru this country have very generally established practice or experimental schools. These schools serve two purposes, first they give the intending teacher an opportunity to engage in teaching until they become familiar with the technique of class instruction and class management; second, they serve as an experimental laboratory for research work on the principles of education. Such practice schools are now in operation at the Universities of Columbia, Chicago, Illinois, Indiana, Arkansas, Kansas, Minnesota, Missouri, Nebraska North Dakota, Utah, South Dakota, Wyoming, and a large number of the colleges engaged in the training of teachers.

COURSE IN AGRICULTURE

Principal Fred M. Hunter

This suggestive two-year course in agriculture is approved by the School of Agriculture. Students taking this course and graduating from an accredited four year high school may complete the course in the School of Agriculture in one year.

First Year	Class hours	Lab. hours	Second Year	Class hours	Lab. hours
First Semester					
Elementary Science	3	4	Animal Husbandry .	3	4
Farm Crops..	3	4	Farm Mechanics .	3	4
Algebra	5		Geometry	5	
English	5		English	5	
Second Semester					
Elementary Science	3	4	Soils	3	4
Farm Crops (6 weeks) ..	3	4	Dairy Husbandry .	3	4
Horticulture (12 weeks) .	3	4	English	5	
English	5		Geometry	5	
Algebra	5				

CONFERENCES

At a meeting of the joint committee of State Y. M. C. A. and school superintendents interested in the boys' work, March 16, it was decided to hold six conferences for High School Leaders, instead of one as was done this year. The towns selected as centers of these meetings are Alliance, Lexington, Norfolk, Holdrege, Seward and Fairbury. The committee of six appointed by the superintendents at York last December will be divided among these cities as follows: Mr. C. M. Penny at Alliance, Mr. F. E. Morrow of Central City at Lexington, Mr. J. H. Kemp of Wayne at Norfolk, Mr. A. H. Staley of Superior at Holdrege, Mr. R. M. Campbell of Columbus at Seward, and Mr. Mays of Lincoln at Fairbury. The six members of the State committee of the Y. M. C. A. in boys' work will be assigned by the chairman, Mr. J. D. Ringer of South Omaha, and announced later.

It is the belief of the school men who were fortunate enough to be present at York at the first annual conference of High School Leaders that this movement has within it one of the greatest possibilities inaugurated among High School boys. Since the meeting at York, which was attended by two hundred delegates from sixty-three schools, very gratifying reports have been received by the State Officers. In almost every instance they have been told that the boys came back with new ideas and new ideals and have worked with a purpose not before known. This mivement is to be carried on primarily by school men, assisted by the State Officers of the Y. M. C. A. For that reason the committee of six, mentioned above, with Mr. Mays as chairman and Mr. Penny as secretary, was appointed by the men present at York. After careful discussion of all phases at the joint meeting of the two committees, Mr. J. P. Bailey's recommendation was adopted.

It is hoped by this proposed change to multiply the benefits of this organization. The towns chosen have been those which seemed to the committee to be the best centers which will accommodate the boys who may be sent. It is hoped that the school men of the State will see the benefits to be derived from such a meeting and will co-operate by having their high schools represented in one of the conferences nearest home. The dates have not been absolutely fixed, but will probably be during the latter part of November and early in December.

THE FACULTY.

Another honor has come to Dr. Bessey, one of the University's "grand old men." He has been appointed chairman of the committee on education of the National Conservation Congress. The other members of the committee, all distinguished educators, are Dr. David Starr Jordan, president of Leland Stanford University; Dr. Edwin C. Alderman, president of the University of Virginia; Dr. E. C. Craighead, president of the University of New Orleans, and Prof. E. T. Fairchild, state superintendent of schools of Kansas.

Volume number one hundred thousand was added to the general library of the University Saturday, March 16, making that day a noteworthy one in the library's history. When Dr. W. K. Jewett became librarian in 1906, there were about 68,000 books on the shelves. As practically none of the acquisitions since then were gifts, it is evident that the University has been purchasing volumes at the rate of between five and six thousand a year. With the hundred thousandth mark now passed and the books judiciously selected, the library compares very favorably with those of other mid-western institutions.

Early alumni will regret to learn of the death of Samuel Aughey at Spokane, Wash., February 3. He was professor of natural science at Nebraska from 1871 to 1883 and established the first herbarium here. He lived to be eighty years old.

To permit better supervision of the work of the practice teachers of the teachers' college, the Lincoln Academy has been taken over by a committee

of trustees for the University. The management will be under Principal Taylor of the Teachers' College High School, and the profits will all be devoted to the improvement of the school and the University.

Nebraska ranks ahead of scholastic Masachusetts, literary Indiana, plutocratic New York and almost all the other states of the union with a high percentage of college students among its inhabitants. Only two states, Kansas and Utah, surpass the Antelope state in this regard. There is one college student for every 135 inhabitants in Nebraska. The ten colleges and universities of the state have a total enrollment of 8,617 students.

Prof. Charles E. Merriam of the University of Chicago, well known reform politician and municipal expert, who gained a national reputation in the Chicago mayoralty election a year ago, has been secured to deliver the commencement address to graduates of the University of Nebraska on June 13. His subject will be "Citizenship." His prominence in the realm of political science will make the address noteworthy.

Dr. Edwin Maxey of the college of law is the author of an article appearing in the March number of the Journal on Race Development. The subject is "Japanese-American relations as affecting the control of the Pacific."

Dr. G. W. A. Luckey, head professor of education, has been granted a leave of absence for one year, which he will spend abroad, mostly in Germany. He will be accompanied by his son Paul, who is an assistant in the department of physics, and by his daughter, Miss Bertha, who is a scholar in philosophy. While abroad they will study physics and pedagogy, respectively.

Prof. P. H. Grummann of the department of modern German literature has been granted a leave of absence for the first semester of the next school year. He and his family will sail for Germany this summer and will remain abroad about six months.

Charles M. Heck, who resigned last year from the assistant professorship of physics which he held, is now a member of an American scientific staff at Shanghai, which is connected with the Y. M. C. A. work in Chinese colleges.

Few alumni are aware that the observer of the government weather bureau for Nebraska also bears the title of associate professor of meteorology in the University. This man, whom the farmers have blessed during the past winter, and who almost everyone else has declared was overworking his snow forecast, is George Andrew Loveland, A. M., LL. B., whose first membership in the faculty dates back to the year 1894.

Regent Frank L. Haller of Omaha suffered a painful attack of inflammatory rheumatism recently and was unable to leave his bed for several weeks.

ALUMNI TIDINGS

ALUMNI CLUBS

On Feb. 27th, thirty Nebraska people—alumni, former students and friends—sat down to a well prepared banquet in a private dining room of Lippe's restaurant, 8th & Olive Sts., St. Louis. Nineteen of the crowd were of the Nebraska delegation, attending the superintendents' meetings. A few pennants decorated the room, and U. of N. colors could not be kept out of the menu.

Dr. Luckey was the unanimous choice for toastmaster, and in the roll call on "Who's Who," he started the long list of Indianans, for quite a number of the crowd were from Indiana, either by birth or adoption. Dr. Luckey claimed that, in view of his service of seventeen years in the University of Nebraska, he should be considered an alumnus of the institution; whereupon, in his case, as in others, it was so voted by the assemblage. A number of toasts were given. The "irrepressible" John Bender was the last to respond. He received a lusty yell, with three cheers and a tiger thrown in. The crowd "broke up" at 8:30, all declaring the affair a grand success, even though it was gotten up on short notice. If alumni would be as active as a former student was in arranging this banquet, it would tell strongly for U. of N. enthusiasm and loyalty. Those of the Nebraska delegation present were: Dr. Luckey, Prof. A. H. Waterhouse, Mr. and Mrs. F. C. Williams, J. R. Fulk, G. P. McGrew, E. C. Bishop, C. N. Walton, J. A. Doremus, E. C. Marcellus, J. E. Delzell, N. M. Graham, Miss Alice Florer, W. E. Schell, Miss Anna Tibbetts, Miss Emma Wilhelmson, V. G. Mays, Miss Dorothea Kolls and L. M. Mumford. The St. Louis Alumni Club members present were: Mr. and Mrs. Theodore Westermann, Mr. and Mrs. Chas. I. Taylor, Mr. and Mrs. H. R. Tucker, L. C. Hummel, Mr. and Mrs. C. M. Hummel, Frank S. Barkes, John Bender.

Prof. C. N. Little, '79, professor of civil engineering at the University of Idaho, Boise, Idaho, was the guest of honor at a luncheon given recently by the University of Nebraska club at Ferguson grill. From 1884 to 1894 Professor Little taught the engineering course in the University of Nebraska, and from there went to Leland Stanford University in California, and was then engaged by the University of Idaho. A number of the Boise alumni were students of the University of Nebraska during Professor Little's time.

MARRIAGES

Lillian May Bennett, '06, was married October 1, 1911, to Mr. Joseph Petrea, at Pawnee City. Mr. and Mrs. Petrea are living at Ottumwa, Iowa.

Arlene Alice Buchan, '08, was married on August 16, 1911, to Mr. Cyrus G. Phillips, the ceremony taking place in the Methodist church at Aurora. Mr. and Mrs. Phillips are living at Lincoln.

Loyd Ancile Jones, '08, was married to Miss Lillian Chaplin at the home of the bride's parents, 407 South Twenty-fifth street, Lincoln. Mr. and Mrs. Jones reside in Washington, D. C., at "The Ingleside," 1647 Lamont street. Mr. Jones is in the U. S. Bureau of Standards and at present is working on the standardizing of colors.

Miss Zora Fitzgerald, '11, and William Earl Hamilton, ex. '11, were married on March 8, 1912, at the home of the bride's parents in Omaha. Mr. and Mrs. Hamilton will be at home on a farm near North Platte.

On November 22, 1911, Mr. Arthur R. Honnold, '04, and Miss Marguerita E. Van Horn were married at the home of the bride's parents, Belle Fourche, So. Dak. They are living at Denver, Colo.

Esther Keller, '08, was married on October 31, 1911, to Mr. John Hart. Mr. Hart is a farmer and stock raiser and resides near Beaver Crossing.

John Duncan Taylor, '09, and Miss Ina Eckles

were married on Oct. 4, 1911, at the home of the bride's parents, 2840 T street, Lincoln. Mr. and Mrs. Taylor live at 921 So. 31st street, Omaha, where Mr. Taylor is assistant district inspector for the Nebraska Telephone Co.

PERSONALS.

J. G. Smith, '88, A. M. '92, popularly known as "Jerry" Smith, was a visitor in Lincoln, March 4. He is one of the University's oldest botany students. After being connected with the Nebraska Experiment Station, where he did valuable work in investigating wild grasses and their cultivation, he went abroad to study. Later he established the first government experiment station in the Hawaiian Islands, and eventually entered business there.

J. A. Barrett, '90, is teacher of mathematics in the high school at Kansas City.

C. E. Tingley, '90, is a minister at Beatrice.

Paul Pizey, '93, is engaged in general law practice at 304-306 National Bank Bldg., Boise, Idaho. C. S. Polk, '87, and Mr. Pizey have offices together at the above numbers.

H. C. Ostien, '95, is head of the Department of Mathematics, Oregon State Normal, Monmouth, Ore.

Frank F. Cook, '96, is with the International Bible Students' Association, 122 Columbine Heights, Brooklyn, N. Y.

Gilbert H. Hall, '96, is physician at 24 Farnham street, Omaha.

Hadley W. Quaintance, '96, is deputy county treasurer at Laramie, Wyo.

Frank E. Wiggins, '96, is now located near Powell, Wyo. He has a fine farm under irrigation and is interested chiefly in alfalfa and stock. He gets his mail at Ralston, Wyo.

Ada V. Graham, '97, is tutoring in Latin and German. She spent last year in the Wenatchee fruit country in the State of Washington. Her present address is 2525 R street, Lincoln.

William Hayward, '97, is associated in law practice with T. E. Wing, '93, P. W. Russell, '98, and D. D. Whedon, '00. Mr. Hayward is secretary of the Republican National Committee.

John A. Saville, '97, is an electrical engineer with the Western Electric Company at Western Springs, Ill.

L. J. Belnap, '98, is vice president of the Rudel-Belnap Machinery Company, Montreal, Canada.

A. D. Brewer, '98, is a physician at Bozeman, Mont.

O. W. Meier, '98, of Lincoln acted as toastmaster at the birthday banquet given in honor of William Jennings Bryan, March 19.

L. V. Patch, '98, who is located at Payette, Idaho, is a man of great activity. In reply to an inquiry as to his occupation, he writes as follows: "I am interested in many things here. Am manager of The Idaho Canning Company, president of the Patch Co-operative Canal Company and The Payette Heights Irrigantion Company, a director in The First National Bank, member of the tenth session of the Idaho legislature, commander of the Idaho National Guard, vice president of The Payette Valley Land and Orchard Company. Five of us have a 720-acre apple orchard, and I am operating several other ranches of my own personal property."

A. A. Reed, '98, High School Inspector, University of Nebraska, attended the recent meeting at Chicago of the Board of Inspectors of the North Central Association of Colleges and Secondary Schools, of which he is a member.

E. B. Sawyer, '98, is president of the Cushman Motor Works, Lincoln.

Dr. C. W. Wallace, '98, associate professor of English language and literature, who has been engaged in research work in London while on an extended leave of absence, has written to other members of the faculty that he will return to resume his duties in the University next fall.

A yearly review number of the Cablenews-American, published August 28, at Manila, P. I., was received at the University some time ago. It is edited by J. F. Boomer, '99, and contains over two hundred pages of finely illustarted news, portraying all the important industries of the islands.

Mrs. Viola Price Franklin, '99, is librarian in the public library at Albany, Oregon.

H. R. Tucker, '99, has been promoted to head assistant in the McKinley High School, St. Louis, Mo.

J. Edgar Baker, '01, is in the ministry at Albion, Idaho.

C. H. Larson, '02, visited the University recently. For eight years he has held a responsible position in the engineering department of the Canadian Pacific railroad in Saskatchewan and adjoining provinces, Canada. Mr. Larson is at present visiting at home at Minden.

Harry M. Garrett, '02, is agent with the Nebraska Central Building and Loan Association of Lincoln, but lives at 1123 Grant St., Beatrice.

Grove H. Rathbun, M. D. '02, is now surgeon at Fremont.

C. A. Rose, '02, is chemist in the research laboratory of the American Smelting and Refining Co., Perth Amboy, N. J.

A letter was received at the University from Samuel Anderson, '03, announcing the birth of a son, Charles Webster Anderson, on Nov. 13, 1911. Mr. Anderson gives his address as Robert College, Constantinople, Turkey.

H. E. Harry, '03, is principal of the high school at Boulder, Mont.

Herman Lindeman, '03, has taken his A. M. at Yale and is now in the ministry at Red Lodge, Mont.

L. M. Huntington, '04, is now located at Azua, Republica Dominica, in charge of preliminary railroad surveys. Mr. Huntington has not been in the United States for six years, but expects to return with his family for a visit some time this year. He will probably be in Lincoln in October or November. He has been very successful in the tropics. At present he is associated with five other American engineers, but of late their work has been largely suspended owing to the assassination of the president of the republic.

J. Martin Raasch, '04, who is now a minister, writes that he has changed his residence from Leavenworth, Wash., to Lake Mills, Wis.

Norton Ware, '04, until recently bridge engineer of the Western Pacific railroad, resigned that position. The Sacramento Union of February 7 contain an extended account of a large drainage reclamation enterprise involving a contemplated expenditure of two million dollars, with Mr. Ware as engineer.

Venus W. Poole, '04, is in government employ and is stationed at the American Sugar company's factory at Rocky Ford, Colo.

Burdette G. Lewis, '04, is an assistant to the president of the board of aldermen, New York City. He is in charge of outside investigations in transit,

school, city real estate and business management for the city.

Leslie N. Gooding, '04, is instructor in science in the high school at Bisbee, Ariz.

Lillian A. Anderson, '04, is an instructor in the Bonita Union High School, San Dimas, Cal.

Elizabeth Brenizer '05, was on the campus recently. She has been at home for the past few months.

Olive Griffith, '05, is at home on a furlough. She will return to her missionary work in India in September.

M. A. Benedict, '06, one of Nebraska's old football player, has sent to the forestry department a copy of the "Sierra Ranger." This is a publication put out by men in the employment of the Sierra national forest. This copy contains some interesting articles by Mr. Benedict and others.

Martha Cline, '06, now Mrs. Y. D. Hoffman, resides at Merna, where Mr. Huffman is cashier in a bank.

J. D. Pollock, '06, is now putting the finishing touches upon a six-thousand-dollar hydro-electric plant as engineer in charge for L. L. Summers & Co., engineers of Chicago. The plant, which is owned by the Olympic Power Co., is situated on the Elwa river, in the peninsula just across Puget sound from Seattle.

Harvey W. Cox, '06, is head professor of philosophy, University of Florida, Gainesville, Fla.

Gustaf A. Pearson, '06, is in the U. S. forest service at Albuquerque, N. M.

S. C. Lambert, '06, is associated with Dr. C. H. Clark at Duluth, Minn. Mr. Lambert took his M. D. degree from Rush Medical College.

Clarence H. Hendrickson, '06, is practicing law at Wayne. He is city attorney.

Sadie Harmon, A. M., '06, is now a member of the faculty of William Woods College, Fulton, Mo.

An illustrated article on the disintegration of cinder concrete, by Professor Borrowman, '07, has been accepted by the Journal of Industrial and Engineering Chemistry, and will probably appear in one of the spring issues. It is the result of some successful research on this subject, dealing with the causes and prevention of the decay of this structural material.

L. L. Zook, '07, has just published a very creditable bulletin on "The Cross Breeding of Corn."

Charles A. Sunderlin, '07, who took a prominent part in intercollegiate debating, is making a reputation as a lawyer in Boise, Idaho. He has recently written an extended article in the Boise Evening Capital News on "Some Phases of Conservation in Idaho."

Hugh W. Craig, '07, who was a Phi Beta Kappa and a member of the intercollegiate debating seminary, and who became a scholar in philosophy at Cornell after his graduation in 1907, has a page article on the Rhodes Scholarship in the January 11 issue of the Youth's Companion. Mr. Craig now resides at Berkeley, Cal.

John F. Kreycik, '07, is an attorney in the real estate and loan business at Gregory, So. Dark. Mr. Kreycik was married in 1908 to Julia Sedlacek of Lynch.

Earl M. Marsh, '07, is credit man and solicitor for the Omaha Electric Light and Power Co. at South Omaha. His address is 5106 Webster street, Omaha.

George F. Williamson, '07, is a graduate student at the University of Nebraska.

Helen W. Anderson, '07, is secretary of the Y. W. C. A. at Muskegon, Wis.

A. L. Lott, '07, has become superintendent of electric lines, O. & C. B. St. Ry. Co.

George M. Tunison, '08, who has been practicing law in Omaha, has been on the Omaha and Winnebago Indian reservations for several months as special agent of the department of the interior. He is engaged in the task of settling the titles to the numerous estates of deceased Indians.

A. S. Harrington, '08, is manager of new business, Oregon Power company, 219 West Fourth St., Albany, Ore.

Claude L. Alden, '08, is now county superintendent of Kimball county.

Mrs. Pearl Fitzgerald Sears, '08, resides at Dallas, So. Dak.

Joseph Swenson, '08, and Earl Powell, '12, have returned from a trip to Havana, Cuba, where they have been on a business trip.

Miss Keo, Currie, '08, is now teaching in the high school at Meridian, Idaho.

A letter was received by Registrar Rutledge of the University from Harry W. White, '08, who is student secretary at Madras, India. Mr. White, a well known student while at the state institution of learning, has been in India for about a year and a half. "In Madras," writes Mr. White, "there are eleven universities and colleges with the total enrollment of over 3,000 students. All of the schools are in or within a short distance of this city. The automobile has also made its inroads into Hindu life and this city is almost as up-to-date and modern as any in America."

Mrs. H. C. Woods, nee Alice Rudersdorf, '08, lives at 1515 9th St., Boulder, Colo.

H. C. Young, '08, holds the position of chemist in the South California pathological laboratory, University of California, Whittier, Cal.

Edward E. Shoufler, '09, is doing post-graduate work at Colgate University, Hamilton, N. Y.

Fred N. Wildish, '09, is with the C., B. & Q. R. R. at Lincoln.

J. H. Blomenkamp, '09, is physician in the City hospital, Chicago, Ill.

Guy Montgomery, '09, is now teaching English in the high school, Salt Lake City, Utah.

Petrus Peterson, '09, is now associated with C. O. Whedon in law practice. His home address is 936 So. 14th St., Lincoln.

Dr. Bessey recently received a letter from Teodulo Topacio, '09, stating that he is an assistant in the entomological section of the veterinary research laboratory at Alabang, P. I.

H. C. Woods, '09, is an instructor, University of Colorado, Boulder, Colo.

J. E. Weaver, '09, who took the A. M. degree in 1911, is instructor in botany, the State College of Washington, Pullman, Wash.

George R. La Rue, '09, is an instructor in zoology, University of Michigan, Ann Arbor, Mich.

Gus W. Peters, '09, died at his parents' home in Springfield on November 5, 1911, after a two months' illness of Bright's disease. Mr. Peters was 27 years old and a native of Sarpy county. While at the University he was captain of company C in his senior year. He was the junior partner and vice-president of the Elwell-Peters Implement and Hardware Co. Mr. Peters was the democratic candidate for county superintendent at the recent election, but was taken ill shortly after the primaries and hence was unable to make a personal campaign.

J. A. Cline, '10, is cashier in a bank at Stromsburg.

Minnie M. Newman, '10, is a graduate student at Columbia University, 420 West 121 St., New York City.

Harry R. Carson, '10, is attendant physician at the asylum for the insane at Norfolk.

William H. Burleigh, '10, is draftsman with the motive power department of the C., R. I. & P. railroad, 1418 Arlington Ave., Davenport, Ia.

Edith A. Forrest, '10, has secured a government position in the Philippine Islands as teacher of domestic science. Miss Forrest will leave Lincoln on April 24th.

L. L. Bishop, '10, is in the U. S. forest service and is at present stationed in northern Georgia, where he is at work with a party examining lands under the "Week's Law," which has in view the establishment of the Appalachian forest reserve.

J. T. Tate, '10, who received his Master's degree in physics at the February commencement, has gone abroad for travel and study. He will do work toward a Ph. D. at the University of Berlin. Before sailing for Europe with Mr. Goodbody, '10, Tate presented a paper before the American Physics Society at New York City.

Dr. F. D. Barker, '10, associate professor of zoology, University of Nebraska, has been granted a leave of absence and will do post graduate research work in zoology at Harvard.

John C. Resler, '10, is professor of physics and chemistry at the Oklahoma Normal, Weatherford, Okla.

R. L. Cochran, '10, is civil engineer and county surveyor at North Platte.

F. C. Harding, '10, is engaged in testing for the Westinghouse Electric & Mfg. Co. Address, 910 Franklin Ave., Wilkinsburg, Pa.

Charles Dobry, '11, is vice-president of the John Dobry Manufacturing Co., Cedar Rapids, Ia.

A. L. Dugdale, '11, who is finishing his medical course at Columbia University, writes that he is well pleased with his work.

O. S. Gilmore, '11, will soon take up the practice of law at Edgar, Neb. He will be in partnership with his cousin, M. L. Corey, '05, who is at present at Clay Center.

P. J. Haldorson, '11, who assisted in the political economy department last year, has resigned his position as teacher at Bancroft and has gone to Washington, D. C., where he has a position in the congressional library.

Alice Humpe, '11, is teaching in the high school of Lincoln.

W. C. Hutchinson, '11, is coach of the Omaha High School basketball team. Mr. Hutchinson was a member of the Cornhusker team for four years and captain in his senior year. The Omaha team won the championship at the recent state meet.

Byrne Marcellus, '11, who was operated on for appendicitis, is rapidly convalescing.

Edgar M. Medlar, '11, is a medical student at Harvard University, Boston, Mass.

Millie L. Miller, '11, is one of the secretaries of the city Y. W. C. A., Minneapolis, Minn.

Arthur M. Oberfelder, '11, is secretary and treasurer of the Elbe-Oberfelder Manufacturing Co., 305 Appel Bldg., Denver, Colo.

Guy E. Reed, '11, will train at the University of Nebraska for the Olympic team and at the same time will act as assistant athletic coach.

R. O. Severin, '11, is with the Central National Life Insurance Co. of Lincoln.

Ralph Weaverling, '11, is practicing law at North Bend.

George W. Huey, '10; Martin L. Struve, '11; Charles G. Bolibaugh, '11, and Frank W. Hornung, '11, are all with the Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Graduates from the University of Nebraska who received their degrees in February, 1912:

George Morris Ackerman, B. Sc. in Engr., Ainsworth.

E. B. Berger, '12 (Feb.), is doing some private work for Professor Hoffman in connection with developments in heating and ventilating engineering, at the University of Nebraska.

George Blanchard Blackstone, B. Sc. in Engr., Craig.

Morris Joslin Blish, B. Sc., Omaha.

Waring Lafayette Codington, B. Sc. in Engr. (Auburn); Construction Dept., C. P. Ry., care C. D. Mackintosh, Winnipeg, Man., Canada.

Samuel Coopersmith, A. M.; A. B. Uni. of N. C. 1910, Durham, N. C.

E. L. Currier, '12 (Feb.), has received an appointment in the U. S. Department of Agriculture, bureau of plant industry. Mr. Currier is a graduate from the college of agriculture.

Randall Fuller Curtis, A. B., Omaha.

Earl Harrison Davis, A. B., 645 No. 26th St., Lincoln.

Guy Russell Davis, A. B., 645 No. 26th St., Lincoln.

Ezra Ditterline, B. Sc. in Engr. (Lincoln), Teacher of Drawing, Manual Training School, 4234 West End Ave., Chicago, Ill.

Silas Calvin Feemster, A. M.; A. B. Drury College, Springfield Mo., 1907; York.

Zora Elizabeth Fitzgerald, A. B., Omaha.

Henry H. Hahn, A. M.; A. B. Ohio Northwestern Uni., 1890. Head of Dept. of Education, State Normal School, Wayne.

Lucy Hortense Hammond, B. Sc. in Agri., 3065 H St., Lincoln.

Margaret Hazel Hathaway, A. B., Hoidrege.

Walter Howard Laubach, B. Sc. in Engr., Omaha.

Carrie Lula Lute, A. B., Paxton.

Frank C. Miles, A. B., Lynch.

Beatrice Moffett, A. B., Lincoln.

John Clancy Mullen, LL. B. (O'Neill). Practicing Attorney, Fairfield.

Richard Allison Phillips, B. Sc. in Agri., 334 So. 13th St., Lincoln.

William J. Scott, LL. B., Herington, Kan.

Bertha Shanek, A. B., Teacher, Hastings.

Sylvester Vaclar Shonka, LL. B., Attorney, David City.

John Torrence Tate, A. M., studying for Ph. D., Berlin, Ger.

Frank Wolesensky, B. Sc. in Engr., Crete.

1912 CORNHUSKER.

This is to be one of the best annuals ever published in the west. Four thousand five hundred dollars will be spent and engravings alone will cost $1,000. Every loyal Nebraska alumnus should have one. Orders with a fifty cent deposit must be in before April 20. Book costs $2.00. Address H. B. Coffee, Business Manager.

The University of Nebraska

SUMMER SESSION

June 14 to August 9, 1912 Registration June 14-15

Academic and Professional Courses by Twenty-Five Departments

Special Course to meet the requirements of new City Certificate Law.

Entrance Requirements to the Summer Session—Admission is granted without examination to graduates of accredited schools. Full admission, thirty points; conditional admission, twenty-four points. September 1, conditional admission will be advanced to twenty-eight points. Applicants 21 years of age may be admitted on approval as "Adult Special" students without reference to a degree.

GRADUATE COLLEGE

Graduate work is offered in nearly all departments. Attendance upon two summer sessions satisfies the requirements for resident work, in approved instances, for the Master's degree.

SCHOOL OF SUPERINTENDENCE

Special week, June 10-14, in conjunction with State Department of Public Instruction. Special features each week throughout entire summer session.

TEACHERS COLLEGE HIGH SCHOOL

Special session of eight weeks at the University Temple. A secondary school offering instruction to high school students and young teachers in all important secondary subjects. Normal training course. Separate departments for students carrying academic subjects and for teachers wishing normal training. Well-qualified instructors selected from successful superintendents, principals and teachers of Nebraska. Apply before June 1 to insure admission.

Academic Department. Students may carry one or two subjects completing a full semester in each.

Normal Training Department. Provision is made for the needs of those desiring to meet requirements for county certificates.

For further information address:

THE REGISTRAR

The University of Nebraska Lincoln, Nebraska

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TEACHERS COLLEGE HIGH SCHOOL EDITION

The University Journal

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UNIVERSITY TEMPLE

Home of the High School

HISTORICAL SKETCH OF THE TEACHERS COLLEGE HIGH SCHOOL.

In 1908, when the Teachers College of the University of Nebraska opened, there was established among other departments that of Educational Theory and Practice. The newly appointed head of this department was in full sympathy with those educators who hold that college bred teachers for secondary schools should have their theoretical education supplemented by practical training before entering the schools as teachers. He was in full accord with the thoughts expressed a few months ago by Professor Bagley, head of the School of Education of the University of Illinois, when he said: "I am convinced that any course of training of teachers which does not provide for practice teaching under the supervision of men or women who are not only specialists in such matter, but also specialists in the teaching of their subjects to pupils of the grade in question,—I believe that such a course is like Hamlet with Hamlet left out." Therefore, one of the first efforts was to establish in connection with the new Teachers College a demonstration school to serve the department of Education as a laboratory serves the department of Science or as a clinic and hospital serves a Medical College. Germany has for years demanded that teachers of secondary schools after completing the course in the gymnasium and the University should spend from two to three years in observation of good teaching and in practice before being certificated to teach. In 1900 France decided that candidates for teaching should receive an education in Pedagogics both theoretical and practical, comprising the history of education, the discussion of methods and the practical application of principles and methods. In 1899 the Teachers College at Columbia University established the Speyer school as a training school where intending teachers might have a period of actual class room practice. About the same time the College of Education of the University of Chicago established an experimental school. A little later Dr. A. Ross Hill, then Dean of the Teachers College at the University of Missouri, opened a practice school to give intending teachers an opportunity for observation and practice before assuming the responsibility of actual teaching in the public schools of the state. The Teachers College high school at the University of Nebraska appeared next among the demonstration schools of this country. Since the opening of these educational laboratories practice schools of a similar kind have appeared in the Universities of Illinois, Michigan, Minnesota, Arkansas, Bryn Mawr, North Dakota, Ohio, Texas, Utah, West Virginia, William and Mary, Wisconsin and Wyoming. In February, 1908, the Board of Regents of the University of Nebraska erected the department of Education into a Teachers College. The Board of Regents appropriated a sufficient amount of money to convert the unfinished basement of the University Temple into a group of attractive rooms for housing the Teachers College high school, which became the training department of the College of Education. A more suitable place could not well have been found, as this building is just across the street from the campus, making it easily accessible to the University students who desire to enter this school for practice and it is yet far enough removed to preclude the mingling of secondary students with those on the campus. Here are found, besides seven large, well lighted comfortable class rooms, a commodious assembly hall, cloak rooms, toilet rooms and ample library and laboratory equipment for a modern secondary school. By the time of the opening of the new Teachers College in the fall of 1908, Dr. Charles Fordyce, the dean and head of the department of Educational Theory and Practice, had the high school rooms finished and a body of high school pupils on the waiting list for enrollment. The training school opened with 50 secondary pupils, the initial number desired, these being divided equally between the ninth and tenth grades. The plan was to open with the two lower grades of the high school and to add a grade each year thereafter until the four grades of the secondary school were complete with 25 to 30 students to the grade. The teaching force consisted of Miss Anna Tibbetts as principal, and Superintendents Vanorsdel, Goss and Kemble as supervisors and departmental teachers, all instructors of tested successful experience in high school work. Besides these high school teachers there was a supervisor of art and one of music. The head of the department of Educational Theory and Practice became the head of the training school and directed the work in general methods in teaching. Dr. Frederick A. Stuff, of the department of English Language and Literature on the campus, directed the work from the outset in the special methods of teaching English. Sixty-five University Seniors received practical training in this demonstration school during the first year of its existence. At the close of the year fully twice as many candidates as could be accommodated sought entrance to the high school. Thirty additional students were admitted, making the enrollment for the second year 80. The school now represented the ninth, tenth and eleventh grades, with Supt. Watson of Valentine as superintendent and Supt. Simons as supervisor of Mathematics and Miss Jennie Piper as supervisor of American History and Civics. The number of Seniors seeking training for teaching became so large in this second year that the high school was unable to provide a sufficient number of classes for teaching experience. In order to provide an additional number a night school was opened in connection with the work of the high school. The student body of this night school was made up wholly of young women representing clerks, factory girls and other young women whose daily occupation precluded their attending day school. This night school had an attendance of 40 pupils. The curriculum of the evening school embraced classes in bookkeeping, arithmetic, English, elocution, English grammar, German, penmanship and spelling. The Board of Regents gladly opened the rooms of the high school gratis to these young women and the teaching was entirely free to them. This night school has had a steady progress from its opening and has proved a blessing both to these young ladies and to the training department of the Teachers College. For convenience it has been removed to the educational rooms of the city Y. W. C. A., where the curriculum has been extended to include domestic art and physical education.

The most appreciable growth of the training school came in the third year of its history, when it enrolled 120 pupils, representing the four grades of the secondary school. With a better organization there came a decided improvement in its curriculum and administration. It was now recognized by the State Department of Public Instruction as a free high school, admitting non-resident pupils from the various parts of the state. These students represented about half the enrollment of the school. The

school was this year given membership among the four-year accredited high schools of the state and was also recognized by the North Central Association of Colleges and Secondary Schools. It thus took rank with the best high schools of the country. Supt. George Crocker of Pawnee City became Superintendent instead of Supt. Watson, who retired because of failing health. Professor Brownell, head of the department of Physical Science of the Peru State Normal School, was called to the department of the theory and practice of teaching the Physical Sciences in the Teachers College and became Director of the training of teachers in Physical Science in the high school. The faculty men on the campus, now convinced of the value of the high school as a field for the practical training of teachers for the public schools of the state, established practice courses in connection with their theoretical courses for the training of teachers in their respective subjects. During this third year practice courses in the demonstration school were established by the departments of Botany, Chemistry, American History, Geography, Physics, German, Latin, French, Domestic Science and Agriculture. The head of the department of Educational Theory and Practice asked these departments to call in from the public schools of the state as representatives of their departments to become supervisors, or critic teachers in the high school, teachers who were experts in both subject matter and in the method of presenting their subjects. The department of Mathematics called to the high school Miss Cora B. Hill as supervisor of Mathematics and teacher of Mathematical Pedagogy. The department of German called in Miss Dorothy Mayland as supervisor of German; the Department of Geography called Miss Donee Griffith as supervisor of Georgraphy; and Miss Viola Barns was placed by the Department of American History as supervisor and instructor in the teaching of American History.

At the opening of the work of the fourth and present year, Supt. Charles Taylor of the McCook public schools, a man of broad public school experience and an acknowledged leader in secondary education, was called to the head of the high school. The number of supervisors or critic teachers was now increased to 14 and the organization of the school and its curriculum was made more thorough. Professor Taylor now relieved Dean Fordyce of the responsibility of administration of the high school, leaving him to his legitimate work in directing the technique of instruction among the Seniors of the University who enter the demonstration school for observation and practice. The number of candidates desiring the work has during this current year increased to 95, making it necessary to seek still other facilities for furnishing teaching opportunities. Accordingly the Lincoln Academy, which has existed for a number of years as a secondary school for the accommodation of freshmen of the University who desire to make up deficiencies in secondary studies, was incorporated as a department of the demonstration school. This provided classes for practice teaching for all who seek this opportunity. Under the

Principal's Office

administration of Professor Taylor a debating league has been added, also a department in Normal Training for high school pupils who desire to enter the rural schools as teachers on the completion of the four-year course, and plans are now being completed for adding a coach and opening athletic work for the following year.

The demonstration school serves three clearly defined purposes:—first, it is under the direction of a practical school man with more than a dozen regular instructors, who are well trained secondary teachers, making the school a first-class secondary school, where the most worthy methods of teaching and school administration are exemplified. It thus becomes a demonstration school where intending teachers may observe expert teaching and school administration. About 50 seniors in the Teachers College enroll in the Department of Educational Theory and Practice each semester and are taken once a week under the direction and supervision of the professor of Educational Theory and Practice to observe lessons pedagogically planned and taught by one of the regular teachers. The observing Seniors write a critical thesis on the work observed, testing the modes of procedure by the principles of Psychology and Education. The criticism is in the first place of the appreciative type. The prospective teachers are asked to look first for the largest and best things in the teaching process; secondly, the criticism is reconstructive, that is, defects are noted and substitute modes of procedure indicated. Such work in observation carried on for at least a semester converts the observer into a self-critic. After the members of this class have become familiar with the teaching activities observed, each takes charge of a class for actual teaching that his theoretical knowledge may be transformed into efficient practice. The period of practice must continue at least one semester, but in many cases it is through the choice of the candidate continued a full year. In this work of actual teaching the second function of the demonstration school is brought forth. In the teaching process the candidate is under a triple type of supervision. First, there is a careful supervision through the department of Educational Theory and Practice, which represents general method in the technique of class instruction and class management. Secondly, the student is under the supervision of the special department representing the chosen subject to be taught, as German, English, Latin etc. Here he is taught not only how to reorganize his subject matter and adapt it to the particular grade being taught, but he is shown through the special methods of supervision how to present the subject in the most effective way. The third type of supervision is that under the control of the principal of the high school, who leads the intending teacher into the functions of school administration. The third function of this training school is that of furnishing a field of experimentation where advanced students may work out public school problems looking to the improvement of the public school curriculum and to better practice in teaching and in school administration. It is to be hoped that the work already opened in this department will contribute in some small degree to the excellent results now coming from experimental education of experimental pedagogy in Columbia, Chicago, Harvard, Cornell, Wisconsin, Missouri and Texas in this country, and Berlin, Geissen, Königsberg, Wurzburg, Breslau, Halle and Leipzig in the old country.

TEACHERS COLLEGE HIGH SCHOOL
Faculty—1911-1912

Members of Teachers College Faculty Directing Practical Courses

Chas. W. Taylor.....Principal
Clark E. Persinger.....American History
Herbert B. Brownell.....Physical Sciences
Frederick A. Stuff.....English
Frederick W. Sanford.....Latin
A. A. Reed.....Reading

Supervisors

Cora B. Hill.....
.....Assistant and Supervisor of Mathematics
Dorothy Mayland .....German
Letta Clark .....English
Daisy J. Needham.....European History
Viola F. Barnes.....U. S. History
Raymond H. Kendrick.....U. S. History
Mabel Claire Metcalf.....Botany
Frank T. Cole.....Mathematics at Academy
Harriett Folger..... .....Domestic Science
C. W. Filley.....Agriculture
Louise Mears.....Geography
Donne Griffith.....Physical Geography
C. R. Rein.....Debating
A. R. Spafford.....Agriculture
C. L. Littel.....Assistant Principal Academy

Teachers—1911-1912

	Subjects Taught.	Residence.
Anderson, A. Emmett.	Mathematics	Lincoln, Neb.
Anderson, Ellen L.	Latin	Harlan, Ia.
Anheuser, Amalia.	German	Omaha, Neb.
Arnold, Frieda.	German	Lincoln, Neb.
Beaver, Chester A.	Science	Red Oak, Ia.
Bennett, Grace	Latin	Lincoln, Neb.
Berry, Lela	English	Fairbury, Nebr.
Bon, Lela	Latin	Oakdale, Neb.
Bilet, Edna	German	Pender, Neb.
Brown, June	English	Kearney, Neb.
Buddenberg, Constance.	English	Lincoln, Neb.
Burritt, Grace	Latin	Lincoln, Neb.
Chambers, Alice C.	Latin	West Point, Neb.
Chatburn, Frances	Mathematics	Lincoln, Neb.
Cole, F. T.	Mathematics	Lincoln, Neb.
Cook, Wauneta C.	Mathematics	Lincoln, Neb.
Cruickshank, Catherine	Science	Lincoln, Neb.
Coale, Lewis	Mathematics	Lincoln, Neb.
Crossley, Wilma	German	Kearney, Nebr.
Davis, Celia Grace.	Latin	Lincoln, Neb.
Dobbs, Evelyn	Mathematics	Beatrice, Neb.
Douglas Marie	Assembly	Plattsmouth, Neb.
Dunham, Frances	German	Lincoln, Neb.
Eads, Blanche	Fu. History.	Lincoln, Neb.
Eccles, Grace	Science	Roswell, N. M.
Farley, Fayse F.	Assembly	Lincoln, Neb.
Fitch, Robin W.	Latin	Lincoln, Neb.
Flock, Maud	German.	Regina, Sask., Can.
Francis, Frances Edith.	English	Cheyenne, Wyo.
Fuchs, Gustave O.	German	Stanton, Neb.
Gannon, Grace M.	English	Lincoln, Neb.
Gowing, Mabelle F.	Science	Lincoln, Neb.
Green, Ralph D.	Science	Beaver City, Neb.
Grimm, Florence	German	Lincoln, Neb.
Halsted, Lloyd	Ger. and Lat.	Tecumseh, Neb.
Hanson, Grace	Latin	Alexandria, Neb.
Hathaway, Hazel	Eng. & Assem.	Holdrege, Neb.
Heiner, Eleanor O.	Science	Gordon, Neb.
Herman, Irma	German	Lincoln, Neb.

A Corner of the Assembly Hall

Holcomb, Amy .....U. S. History...Lincoln, Neb.
Houston, Sallie D. .....English .....Uni. Place, Neb.
Humpe, Alice A.....Science .....Lincoln, Neb.
Hyder, Ruth .....Latin .....Lincoln, Neb.
Jewell, Stella .....Eng.....Weeping Water, Neb.
Jones, Effie Louise....Latin .....Normal Neb.
Kay, Mildred .....English .....Ewing, Neb.
Keifer, Lucy S. .....Science .....Bostwick, Neb.
Kess, Anna B.....English .....Lincoln, Neb.
Kunkel, Margaret A...Sci. and Assem..Osceola, Neb.
Lacey, Lydia E.....Math.....Council Bluffs, Ia.
Lewis, J. F. .....Science .....Lincoln, Neb.
Littel, C. L. .....Science .....Lincoln, Neb.
Lowry, Kathryn.....English .....So. Omaha, Neb.
Lynch, Laurie .....English .....Lincoln, Neb.
Lyman, Blanche .....Eu. History.....Lincoln, Neb.
Lyons, Flossie.....Ger. & Assem..Lincoln, Neb.
Malone, Celia .....Mathematics ...Lincoln, Neb.
McGahey, Jean .....Mathematics ...Lincoln, Neb.
Matrau, Agnes.....Latin .....Norfolk, Neb.
Miller, May Maurien...English .....Lincoln, Neb.
Metzer, Pattie .....Chemistry..Cedar Creek, Neb.
Oak, Emma J.....English..Three Forks, Mont.
Pagels, Anna .....Ger. and Hist..Beatrice, Neb.
Pearson, Clara.....English .....Wilcox, Neb.
Pope, Mildred .....English .....Lincoln, Neb.
Power, J. F. .....Assembly .....Ponca, Neb.
Ptacek, Eva .....Science .....David City, Neb.
Randall, Edna M.....U. S. History...Oberlin, Kan.
Roach, Bertha .....German .....Lincoln, Neb.
Rush, Florence .....English .....Omaha, Neb.
Robbins, Mary .....Latin .....Lincoln, Neb.
Ryan, Beth .....Latin .....Lincoln, Neb.
Rymer, Harriet.....English .....Lincoln, Neb.
Scott, Ethel .....Latin .....Kearney, Neb.
Snyder, Erwin P.....Math.....Council Bluffs, Ia.
Spafford, R. R. .....Science .....Falls City, Neb.
Spelts, Alma .....U. S. History...Lincoln, Neb.
Sprague, Erma .....Latin .....Lincoln, Neb.
Stanton, Hazel M. .....Math. & Assem.....Polk, Neb.
Stenger, Cecelia C. ....German .....Columbus, Neb.
Stewart, Margaret T...Latin .....Lincoln, Neb.
Storey, Vernon ..... Latin .....Red Cloud, Neb.
Sturdevant, Ollie.....Physiology .....Lincoln, Neb.
Swenson, Nels A.....Mathematics ..Holdrege, Neb.
Thompson, Lois M.....German .....Houston, Tex.
Thompson, Margaret...Latin .....McCook, Neb.
Tibbetts, Ruth.....Algebra .....Hastings, Neb.
Truell, Grace .....English .....Lincoln, Neb.
Walker, Grace.....Lat. & Assem..Douglas, Neb.
Warner, Esther.....U. S. History...Lincoln, Neb.
Wilcox, Gertrude A....Eu. Hist....Lodge Pole, Neb.
Williams, Edith B.....Mathematics ...Lincoln, Neb.
Zumwinkel, Alvina.....Botany .....Utica, Neb.

1912 CORNHUSKER.

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The summer session begins June 14.

Non-Resident Pupils Having Free High School Attendance Certificates
School Year 1911-1912

Name	Grade	No.	County
Albert, Roy	1	2	Lancaster
Anderson, Alfred	12	4	Lancaster
Anderson, Nettie M.	11	4	Lancaster
Anderson, Ralph	11	30	Nance
Bell, Edwin	9	54	Lancaster
Bell, Lucile N.	11	6	Johnson
Dunham, Robert B.	11	2	Lancaster
Eversole, Merle	11	101	Lancaster
Furgason, Leota	9	3	Lancaster
Gentry, Annie	9	3	Lancaster
Gentry, Robert	12	3	Lancaster
Greenemeyer, Irene	10	30	Lancaster
Hoy, Frances	9	4	Lancaster
Hudson, Eleanor	11	69	Lancaster
Magee, Harry	10	126	Lancaster
Meyers, Roger	11	126	Lancaster
Munson, Carl	10	51	Lancaster
Munson, Letta	10	51	Lancaster
Needham, Emma	12	81	Nuckolls
Nordstrum, Esther	10	92	Lancaster
Nordstrum, Lillian	12	92	Lancaster
Pay, Esther	9	126	Lancaster
Pay, Ethel	9	126	Lancaster
Perrin, Roscoe	12	30	Lancaster
Rhine, Harold	9	3	Lancaster
Riggs, Joy A.	11	4	Thomas
Roberts, Fay	9	126	Lancaster
Sacks, Inez	9	57	Lancaster
Safford, Elizabeth	10	43	Lancaster
Shea, Mildred	11	73	Lancaster
Sigler, Mary	11	50	Lancaster
Stockfeldt, Edward	12	51	Lancaster
Temple, Lee	10	42	Lancaster
Vorhees, Edson	12	2	Lancaster
Walvoord, Antonette	12	12	Lancaster
Wilkey, Eda	9	53	Gosper
Wilkey, Esta	10	53	Gosper
Wilson, Leona	12	2	Lancaster
Williams, James	11	47	Lancaster
Boys	15		
Girls	24	Total	39

Ninth grade	9
Tenth grade	9
Eleventh grade	12
Twelfth grade	9

Normal Training Class
1911-1912

Seniors

Bauer, Gertrude
Condra, Cordelia
Edwards, Sarah
Hollingsworth, Reta
Hurd, Clarence
Lyons, John
Nordstrum, Lillian
Perrin, Roscoe
Paska, Sidney
Pope, Ruth
Powers, Hildegard
Proudfit, Juliet
Sigler, Mary
Stockfeldt, Edward
Storm, Ruth
Troyer, Ethel
Walvoord, Antonette
White, Bonita

Juniors

Bell, Lucile
Edwards, Lulu
Horton, Myrtle
Hudson, Eleanor
Kean, Verna
Lee, May Myrtle

Students 1911-1912
Teachers College High School
The University of Nebraska
H. S. Proper.

All addresses Lincoln unless otherwise indicated.

Adams, Letha
Albert, Roy
Alfonso, Emelio
Anderson, Alfred
Anderson, Nettie
Arterburn, Roley
Babcock, Vale
Baird, Florence
Ball, Nina
Ballard, Joy
Ballenger, Gail
Bauer, Gertrude
Bauer, Rosina
Bell, Edwin Ceresco
Bell, Lucile Vesta
Bowers, Hallie
Brown, Louise
Chamberlain, Atwood
Chamberlain, Leon Brownsville
Chapin, Don
Chittenden, Marguerite
Crittenden, Marie
Collier, Phyllis
Condra, Cordelia
Davis, Archie
Delano, Clarissa
Dennis, Paul
Diamond, Herbert
Dobbins, Cecil
Draper, Alice
Dunham, Robert Normal
Edwards, Lulu Alexandria
Edwards, Sarah Alexandria

Free High School Attendance Pupils

Normal Training Class

Eigenbroadt, Heila
Ensign, Pauline
Eversole, Merle
Faulkner, Richard
Finch, Edgar
Freeman, Howard
Freeman, Margaret
Furgason, Leota
Gayer, Harry
Morganza, La.
Gentry, Anna
Gentry, Robert
Greenamyre, Irene
Cheney
Greenman, Genevieve
Gutzmer, Elmer
Swanton
Haas, Marjorie
Syracuse
Harris, Alice
Hollingsworth, Ethel
Hollingsworth, Reta
Horton, Fern
Horton, Myrle
Hoy, Frances
Hudson, Eleanor
Hurd, Clarence
Ives, Glade
Kean, Verna Havelock
Killen, Edgar
Knight, Vivian
Lawler, Esther
LeMay, Myrtle
Denton
Lord, Gladys
Lyons, John Asylum
MacDougal, Jennie
Mawe, Vesta
McBride, Florence
Megee, Harry
Metcalf, Theodore
Meyers, Roger
Mitchell, Lulu
Mockett, Florence
Montgomery, Wayne
Munson, Carl
Munson, Letta
Needham, Emma
Bostwick
Nordstrom, Esther
Havelock
Nordstrom, Lillian
Havelock
Northrup, Paul
Pay, Esther
West Lincoln
Pay, Ethel
West Lincoln
Perrin, Roscoe Roca
Phillips, Bessie
Henderson, Ia.
Pierce, Gillmore
Platt, Ross Olwein, Ia.
Polk, Marguerite
Pope, Ruth
Poska, Sidney
Powers, Hildegard
Pratt, Frances
Proudfit, Juliet
Rebuck, Floyd
Rhine, Harrold Omaha
Riggs, Joy
Risden, Sarah
Roberts, Faye
Royce, Floy
Rush, Roma
Sacks, Inez Bethany
Safford, Elizabeth
Sanford, Genevieve
Sares, Charles
Schrepf, Mary
Shea, Mildred Raymond
Shepherd, Helen
Sigler, Mary
College View
Smith, Clarence
Stephenson, Byron
Stockfeldt, Edward
Storm, Ruth
Streeter, Lenore
Temple, Lee Hallam
Troup, Grace
Troyer, Ethel
Van Wie, Harriet
Waverly
Vorhees, Edson
Walvord, Antonette
Holland
Warner, Estelle Roca
Watkins, Marion
Weigand, Guy
White, Bonita
White, Paul
Widney, Grace
North Henderson, Ill.
Williams, James
Raymond
Wilkey, Eda Smithfield
Wilkey, Esta Smithfield
Wilson, Joe
Wilson, Leona Normal
Wright, Ione

Academy Students
1911-1912

Anderson, Lee N.
Harlan, Ia.
Anderson, Manuel
Alm, Oscar Minneola
Appleman, Clifford
Badgette, Marjorie E.
Cheyenne, Wyo.
Bolling, W. F.
Fort Crook
Borgelt, Ralph
Brainard, Alma E.
Normal
Brix, Aage Emil
Lexington
Burnett, J. B.
Butler, Fred E.
Carson, H. L.
Chinds, C. W. Wymore
Christie, J. A. Omaha
Daily, Sutton J.
Drebert, Eleanor
Dunn, Lester Lloyd
Atlantic, Ia.
Edson, Louis Elmont
Council Bluffs, Ia.
Fee, Ray Evans Benson
Franklin, N. V.
Cambridge
Givens, J. H. Seward
Grant, Alister Seward
Hart, Gladys Hardy
Herman, Richard
Culbertson
Holyoke, Robert
Howe, Donald K. Omaha
Johnson, Julius Norfolk
Ikari, Shigern Japan
Jordan, Raymond
Kikuchi, Saburo
Sendai, Japan
Kimball, Kent
Kuppinger, Herman
Lahr, Ruth
Lake, Lilburn
Lexington
Lichtenstiger, Fay
Lindeberg, E. L.
St. Louis, Mo.
McGee, Arthur J.
Lorain, Ohio
Miller, Edna Emma
Rising City
Naess, Peter O.
College View
Osborn, Marion V.
Paine, J. L.
Paige, Francis
Polhemus, Carrie
Holdrege
Rands, Julia
Foxton, Colo.
Ronne, Jesse
Weeping Water
Schaefer, Frank O.
Bruning
Scott, Wallace M.

Shabouth, J.
Shockey, Henry
Shirey, Ray E. Normla
Smith, A. L.
Spafford, Louis L. Falls City
Swanson, Harry R. Omaha
Taylor, Burke W.
Towle, Leland M.
Tuthill, Francis
Volger, Robert Kimball
Weaver, Margaret L. Beatrice
Wentz, Leland E.
Weyant, Romer G.
Whitmore, Victor
Wilmeth, Hal
Withers, Gladys
Young, Roy M. Benson

Honor List
First Semester

Pupils making a general average in all subjects of 90% or over.

Brown, Louise
Edwards, Sarah
Eversole, Merle
Hurd, Clarence
Lord, Gladys
Phillips, Bessie
Polk, Marguerite
Rhine, Harold
Troup, Grace
Watkins, Marion

Graduates Teachers College High School
Class 1911

Allen, Edith
Anderson, Esther
Anderson, Henry
Anderson, Mabel College View
Bentz, Ethel F. Swanton
Bush, Frank
Collman, Algernon
Dore, Ruth Normal
Fakin, Aetna
Galusha, James McCook
Hill, Clara
Hummell, Earl
Hummell, Pearl
Humphreys, Mary
Ives, Louise
Lawrence, Mary E.
Lawrence, Esther Joy
Liembaum, Carl
Malone, Ruth
Moseley, Glen
Pettis, Edwin
Priest, Herbart Normal
Priest, James Normal
Swingle, George
Ubl, Joseph Sprague
Williams, Delbert W.
Witte, Henry Swanton
Yeast, Ruth

Summer School 1911

Brown, Harley
Hohman, William
McBrien, Rufus
Pearson, Fred
Phillips, Gayle Henderson, Ia.
Randall Helen
Rush, Beular

THE TEACHERS COLLEGE HIGH SCHOOL THE UNIVERSITY OF NEBRASKA

The Teachers College High School is a four year high school meeting all college and university entrance requirements. It is fully accredited by the University of Nebraska, of which it is an organic part, being a regularly organized department of the Teachers College. This department of the Teachers College performs the function of training university seniors and graduates for positions as high school teachers. The students of the Teachers College High School rank as regular high school pupils.

The Pupils of the Teachers College High School

The question is often asked, where do the purpils come from who make up the school? The pupils are a picked class of young people. This does not mean that they are all of one temperament. On the contrary they present as great a range of personality as do the pupils of the ordinary high school. Admission is gained only through written application with evidence of good character and studious habits. No pupil is admitted who has not completed the eighth grade of work in a satisfactory manner. Pupils coming from other high schools must present satisfactory evidence of honorable dismissal. Last fall over ninety more pupils applied than could be accommodated.

Of the total enrollment of 129 in the high school proper for the present year, 42 are boys and 87 girls.

The parents of over half of this number live outside of Lincoln.

Thirty-nine have free high school attendance certificates, this school being recognized by the state department as a school authorized to admit pupils under the free high school attendance law. Many of the Lincoln students come from the best families of the city.

One day during the present semester a questionaire was given out in the high school proper. Ninety-seven pupils answered the question asked.

52 had entered the Teachers College High School for their ninth grade work and had never gone to any other school.
10 Had entered in the tenth grade.
25 in the eleventh grade.

Senior Class

10 in the twelfth.
47 were non-resident pupils coming from the rural districts and ten or eleven grade high schools near Lincoln.
Only 22 had ever attended the Lincoln high school at all.
69 were preparing to enter the University of Nebraska.
18 are preparing to enter some other college or university.

The last two mentioned facts speak eloquently for the splendid quality of the student body.

70 of the 97 have selected the occupations which they wish to follow.
34 expect to teach school either before or after their university course.
11 will enter engineering work.
4 are preparing for a medical career.
11 will specialize in music.
5 will enter the legal profession.
2 expect to be bankers.
1 will be a dentist.
2 will take courses in technical agriculture.
1 will be a medical missionary.

The facts above mentioned will give a correct notion of the personnel, ambition, industry and worth of this picked class of boys and girls.

The Faculty

While the university function of the high school is to provide opportunity for university seniors and graduate students to take training as practical teachers, the fact remains that the pupils receive better teaching and more personal attention than in the ordinary high school. The North Central Association of Colleges and Secondary Schools, which is perhaps the highest authority on accreditment in the United States today, has declared the teaching done in training high schools better than that of the average high school.

All teaching by university seniors and graduate students is done under three direct and constant lines of supervision:

a. University instructors and supervisors for organization of material and subject matter taught.
b. Professor of educational theory and practice for general method, technique of instruction and class room management.
c. Principal of high school in general administration and method.

The practice teachers have had six to eight years special study of the subjects they are teaching. Many times they have had several years' experience in the field before coming to the university to complete their education. Often they are graduate students in the university who are working for higher degrees and preparing for positions in the larger high schools or in colleges. They spend much time giving special help and inspiration to the pupils outside of the regular recitation periods as well as at the regular class time. The whole effort of the practice teachers is to work into the teaching spirit, and to help the boys and girls.

The Course of Study

The course of study is that of the regular high school having four grades above the eighth. The graduates of the school enter the university without examination. Owing to the intimate relations with the regular university departments, the course of study is often enriched beyond the usual standards.

Number of Pupils

The number of pupils in the high school proper is limited to 120, all of whom are required to take full high school work. Provision has been made in a separate building for a limited number of students who wish to make up a few points for university entrance. Nearly 70 have been accommodated the present semester in addition to the high school proper.

Tuition Rates

The tuition is $13.50 each semester, paid in advance. The Teachers College High School has been recognized by the state department of public instruction as a school authorized to admit pupils under the free high school attendance law.

Tuition in the academy department of the high school is $8.00 for one subject, $15.00 for two subjects and $20.00 for three or more. Special classes will be organized for academy subjects when a number sufficient to justify the formation of the class registers. All of the academy work is done under the same supervision and inspection as in the regular high school.

Normal Training

The educators of the state have been almost unanimous in their support of and interest in normal training for high schools. The normal schools, colleges and universities recognize that this work will always be a powerful influence urging young people to fields of higher education.

It is not to be wondered at that numbers of the boys and girls living in a continual atmosphere of educational theory and practice, have become possessed of a desire to teach. With the university equipment and atmosphere it is readily seen that conditions here are ideal for normal training of the pupils themselves.

Accordingly a class of 24 was organized in normal training at the beginning of the year. Professor Reed, one of the authors of Essentials in Reading, the recognized text-book in reading for normal training classes all over the state, teaches reading to the normal training class. Principal Taylor teaches arithmetic and grammar. Miss Cora B. Hill teaches pedagogy, Miss Louise Mears takes the work in geography and C. W. Filley of the college of agriculture handles the work in agriculture. Some splendid teachers are in training for rural school work here.

The Science Work of the High School

While primarily the Teachers College High School is maintained for the training of prospective teachers, in its organization the interests of the high school pupils get first consideration. There are classes in agriculture, botany, chemistry, elementary (general) science, physical geography, and physics, with both forenoon and afternoon sections in some of these branches. Both class-room and laboratory work are under closest daily supervision. What shall be taught, and the manner of its presentation, are matters of daily consultation. For the several science branches there is an equipment chosen to yield not only the desired teaching results for the high school work, but as well through its use to acquaint teachers in charge of classes with an outfit well suited for high school work generally. Provision is made after regular high school hours for students lacking university entrance credits in physics, experienced teachers having charge; provision is likewise made for corresponding courses in the other nigh school sciences.

Many of those teaching in the regular high school classes have had previous experience, and all during this their senior year, or previously, have taken courses both in general teaching methods and in the special methods of some one of the science branches. As only a high degree of excellence in teaching is satisfactory for the purposes of training, the pupils of the high school are thereby given the best of instruction.

In high schools commonly the same teacher has several, perhaps all, science branches. In order the better to prepare for such conditions, provision is made for change in class assignments from time to time; for use so far as possible of apparatus in common in the several branches; for weekly conferences together of all who teach science classes concerning the various teaching problems met by all. By careful selection of subject-matter in the several branches effort is made to closely relate rather than to differentiate the teaching in them. The work thus becomes a training school for teachers of high school sciences, indeed; it serves equally well, too, for the interests of the pupils of the high school by unifying the work in the several science branches.

Accreditment and Standing

The Teachers College High School enjoys the highest honors of accreditment which can come to any high school in that it is on the "accredited list" of the North Central Association of Colleges and Secondary Schools, besides being fully accredited by the University of Nebraska. This means that its credits are accepted without examination by all colleges and universities that admit pupils on credentials.

Standards

A "credit point" means the work of five recitations a week of not less than fifty minutes in length each, for at least eighteen weeks with a semester standing of 70% or above. In laboratory courses a credit point means three recitations a week plus two double periods of laboratory work under the supervision of an instructor.

By "credit per cent" is meant the "semester credit point" expressed in per cent proportionate to the number of hours a week the subject was carried. In five hour subjects the "credit point" per cent and "credit per cent" are the same.

All instruction is given either by university supervisors representing the departments of the University, or by seniors and graduate students in the Teachers College of the University.

Graduation Requirements

All candidates for graduation from the high school must present 2,560 credit percents. This standard means the equivalent of 32 credit points with an average of 80% each. By this principle the QUALITY as well as the QUANTITY of the pupil's work is considered in the graduation requirement. The total credit percents is found by adding all credit point percents of five-hour subjects. Subjects less than five hours a week count their proportionate share. The standard of scholarship has been raised

Physical Laboratory

Botany Laboratory

to a par with that of the best high schools and will be kept there.

The graduation by total percent standard is an adaptation to high school conditions of the "grade hour" plan advocated by Dr. Bessey. The records are kept as before with the "credit point" as the basis of calculation. The principle will be so applied to upper classmen as not to work an injustice to anyone.

For example John Brown does a year's work as follows:

First Semester.

Latin	1 credit point	92%
Algebra	1 credit point	85%
English	1 credit point	90%
Civics	1 credit point	88%

Second Semester.

Latin	1 credit point	90%
Algebra	1 credit point	80%
English	1 credit point	91%
Agriculture	1 credit point	88%

On the old standard he has made 8 credit points, has finished the ninth grade, and is one-fourth of the way through school. By the new plan, simply add the percents, giving a total of 704 credit percent. He is therefore 704/2560 of the way through school, a little more than one-fourth, because he is a student above the average in the quality of his work.

John Jones, a classmate of John Brown, might make the same number of credit points but a much lower total credit percent, owing to the poor quality of his work, and not be quite one-fourth of the way through school. In either case the old-fashioned credit point is the basis of calculation.

Location and Equipment

The school is located in the University Temple, occupying all the ground floor with the exception of the cafeteria kitchen. Besides three combination laboratory and class rooms, there are five recitation rooms, one assembly room, seating 120 pupils, one teachers' waiting room and three office rooms.

The pupils of the high school proper are kept separate from the academy students, who occupy a building three doors north of the Temple.

The high school proper has the same organization as any well-regulated school and presents the natural, ordinary problems usually to be met in a school of this size. The requirements in scholarship and conduct are held to a high standard. The school has outgrown its present quarters both as to the number of pupils seeking admission and as to the demands of prospective teachers for opportunity to take the training which the school gives. The equipment is first class.

Student Activities

The students are encouraged along the line of athletics, debates and class plays. Each year the senior class presents a play. The class of 1912 gave "Cupid at Vassar" on April 27 in a manner highly creditable to the members of the cast and the school.

Boys' teams in football and basketball are features of school life, giving much pleasure to the participants.

The school has been a member of the State Debating League for two years. Last year's team was more successful in winning debates than this year's team. However, there is a good sized class in argumentation this year and the team is one of which the school is proud.

Text-Books

Text-books are furnished free by the University of Nebraska.

Principal Charles W. Taylor will be in Columbia University this summer. The work of the summer session will be well taken care of during Mr. Taylor's absence by Principal Vernon G. Mays of the Lincoln High School and Inspector A. A. Reed.

Faculty for Next Year

The faculty for next year has been strengthened and enlarged. Parents wishing to send pupils should make written application on or before August 15, addressing Principal Taylor, Teachers College High School, Station A, Lincoln, Nebraska.

NEBRASKA HIGH-SCHOOL DEBATING LEAGUE

The championship of eight of the twelve districts had been decided the middle of April. Geneva took the first honors in the Central District; South Omaha in the Eastern; O'Neill in the Northern; Wayne in the Northeastern; Fullerton in the North-Central; Minden in the Southwestern; Kearney in the Western; and Merna in the West-Central.

The fifth annual state debate by representatives of the district championship schools will be held at the University of Nebraska, Saturday morning, May 18—High School Fete Day.

The League's "Bulletin," published soon after the state debate, will contain the question, together with a selected bibliography on it, for the sixth annual debates (1912-1913).

Results of district contests follow, the school named first in each case maintaining the affirmative of the "closed"-open shop question:

Central District

Friend (winner from Osceola)-Geneva (winner from York). Won by Geneva, unanimous.

Eastern District

Blair-South Omaha (winner from Fremont). Won by South Omaha, unanimous.

Weeping Water (winner from Plattsmouth)-South Omaha. Won by South Omaha, unanimous.

East-Central District

Ashland (winner from University Place)-Cook. Won by Ashland, unanimous.

Lincoln (winner from Teachers College High School)-Havelock (winner from Wilber). Won by Lincoln, unanimous.

Wilber-University Place. Won by Wilber, two-to-one.

North-Central District

Madison-Newman Grove. Won by Newman Grove, two-to-one.

Albion-Tilden. Won by Tilden, two-to-one.

Fullerton (winner from Hooper)-Newman Grove (winner from Madison). Won by Fullerton, unanimous.

Chemistry Laboratory

1912 Cornhusker

While they last, Cornhuskers will be sent by mail prepaid, upon receipt of $2.25 each. Orders and remittances should be sent to Harry B. Coffee, business manager, in care of the University.

Facts Concerning This Annual

Most expensive Cornhusker ever published.

Printing alone, 1,000 Copies,	$2,042.00
Engraving bill will be about,	1,200.00
Art work and Cartoons,	300.00
Other Expense,	500.00
Total expense, 1,000 copies,	$4,042.00

Each copy actually cost $4.00, but will be sold at $2.25, due to the liberality of the advertisers.

48 more pages than the 1911 book.

A real live joke section—no one barred.

TESTIMONIALS

"I am acquainted with the plans of the 1912 book and believe it will surpass any Cornhusker ever published."—Guy E. Reed. Editor 1911 Annual.

"If the balance of your copy is as good as the first lot, the Cornhusker will be better than the Minnesota Gopher,"—Minneapolis Bureau of Engraving.

Fullerton-Tilden. Won by Fullerton, two-to-one.

Northeastern District

Wayne-Randolph (winner from Hartington). Won by Wayne, two-to-one.

Wayne (winner from Randolph)-Creighton (winner from Pierce). Won by Wayne by default.

Northwestern District

Gordon (winner from Rushville)-Chadron (winner from Crawford). Won by Gordon, unanimous.

Southern District

Blue Hill (winner from Edgar)-Hastings. Won by Hastings, unanimous.

Diller (winner from Hardy)-Western (winner from Ohiowa). Won by Western, two-to-one.

Southeastern District

Falls City (winner from Stella)-Auburn (winner from Nebraska City). Won by Falls City, two-to-one.

Southwestern District

Minden-Oxford (winner from Beaver City). Won by Minden, two-to-one.

McCook (winner from Trenton)-Franklin. Won by McCook, unanimous.

McCook (winner from Trenton and Franklin)-Minden (winner from Oxford). Won by Minden, two-to-one.

Western District

Kearney-North Platte. Won by Kearney by default.

West-Central District

Merna (winner from Broken Bow)-St. Paul (winner from Ord). Won by Merna by default.

FACULTY NOTES.

An article by Prof. S. B. Gass of the Department of Rhetoric, entitled, "Without a Straw: A Reflective Narrative of a College Experience," will appear in The Yale Review; and another by Professor Gass, entitled, "The Arts College and the Democracy." will appear in the Sewanee Review.

Professor H. B. Alexander of the Department of Philosophy, is mentioned in the preface of "Grammar and Thinking," by A. D. Sheffield, recently published by Putnam's, as having read the manuscript and given "expert criticism upon passages where, as a layman in philosophy," the author "must otherwise have lacked assurance."

An article by Dr. Louise Pound of the Department of English Literature on "Intrusive Nasals in English" will appear during the year in the German philological periodical, Englische Studien. An article by the same author will also appear in Dialect Notes during the year.

High school students desiring to make up entrance credit will find an opportunity under most favorable conditions in the summer session of the Teachers College high school.

ANNUAL TRACK MEET OF NEBRASKA HIGH SCHOOLS

University Athletic Field, Lincoln, Nebraska

Saturday, May 18, 1912, 2:30 p. m. Sharp

The University of Nebraska and the Lincoln Commercial Club have again made it possible for the Board of Control of the Nebraska High School Athletic Association to announce Lincoln as the place for holding the 1912 Track and Field Meet. The meet will be held on the University Athletic Field.

As heretofore, winners of first places will be given

gold medals, winners of second places silver medals, winners of third places bronze medals, while the men holding fourth places a badge. The winning relay team will be given a handsome pennant. Besides these, a silk banner will be given to the winning team, and becomes the permanent property of the school winning it three times.

The entire net receipts of the meet will be prorated according to distance and number of men on teams, as heretofore, except as provided in the following action taken by the Board of Control at its meeting held February 2, 1908: "That the money from gate receipts, after the expenses for medals and incidentals are deducted, shall be prorated to the teams from the different schools as follows: All schools less than 100 miles from Lincoln, on the number of men up to the limit placed by the constitution (10) and according to the distance traveled; schools from 100 to 150 miles on one-half the number; and over 150 miles on one-fifth the number, placed by the constitution and according to distance traveled."

Each team on arriving at the University, prior to the meet, must file with the secretary a certified list of those who will participate in the meet, together with the distance traveled. This will be necessary in order to secure a refund on transportation.

No individual entrance fee is required. Schools must join the High School Athletic Association and pay the membership fee of $2.00. All schools wishing to participate must be enrolled by Thursday, May 9. Enrollment fees are to be sent to Supt. E. U. Graff, Secretary of the Board of Control, Omaha, Nebraska.

All entries of contestants are to be mailed to the Secretary of the Board of Control, and no entry will be received if postmarked later than 12:00 m., May 9. Address Dr. R. G. Clapp, University of Nebraska, for any further information concerning details of the meet.

HOW NEBRASKA EDUCATORS ARE GOING TO THE N. E. A.

After considerable correspondence and more or less consultation with interested parties it has been decided to leave Nebraska in a special train over the Burlington for the N. E. A. at Chicago, July 6-12. The special train filled with Nebraska educators headed for the N. E. A. will leave Omaha Friday evening, July 5th, arriving in Chicago in the forenoon of July 6th in time for the first meetings of the Association.

In the educational world Nebraska has been forging rapidly to the front. Her teachers and schools are among the best and a new class of progressive young men and women are preparing to take the place of the old as they leave the ranks. There is something about the atmosphere of Nebraska that deepens one's love for the state and its people. Once a Nebraskan always a Nebraskan. Hence we do not feel that we have lost one of our friends and citizens when his worth has called him into broader fields of action. But in order that this spirit of true fellowship may be extended it must be known. The best ideas if hidden under a bushel will go out in darkness. The teacher, especially, however true her thought and life, needs to be known in order to succeed. These great gatherings of the best in our profession offer the opportunity, and going from the state in a body will increase the advantage both at home and abroad. While it costs two dollars a year to keep up active membership in the Association and much more if one occasionally attends the great meetings, the advertisement and profit will repay the progressive teacher many times. In fact, if you have merit and wish to come to the front you can hardly afford to miss these opportunities of becoming acquainted with the best in your profession. Nebraska is sure to take one of its largest bodies to the meeting of the N. E. A. at Chicago, and special effort will be made to have the trip one of profit and pleasure. It is seldom that Nebraska is so favored in the meeting place of the N. E. A. Many teachers are going to take advantage of this meeting who have never before attended the Association.

In order to strengthen the work of the State Director for Nebraska, President Pearse has appointed on a Committee of Co-operation for the State the following persons, all of whom will be pleased to answer questions regarding the Chicago meeting of the N. E. A.:

James E. Delzell, State Superintendent of Public Instruction, Lincoln.

Edwin L. Rouse, Dean of State Normal School, Peru.

Ellis U. Graff, Superintendent of Schools, Omaha.

Archibald H. Waterhouse, Superintendent of Schools, Fremont.

Nathaniel M. Graham, Superintendent of Schools, South Omaha.

Edwin J. Bodwell, Superintendent of Schools, Beatrice.

Walter W. Stoner, Superintendent of Schools, York.

Edith A. Lathrop, County Superintendent of Schools, Clay Center.

Besides the above, every city and county superintendent of the State will be pleased to advise their teachers regarding the coming meeting of th N. E. A.

The state director has also asked the Burlington city ticket agent at Lincoln, Geo. W. Bonnell, to send information and appropriate literature to the teachers of the State and also to look after the convenience and comfort of all those who are to go with the special train. The special train will be made up in large part of standard sleepers, but tourist sleepers and chair cars will be taken also as needed. Write to Mr. Bonnell or arrange with your local agent for accommodation, stating the kind you desire. It is probable that special cars will be made up at Aurora, Alliance, McCook, Beatrice, Holdrege, Hastings, Kearney, Lincoln, Peru, Omaha. Teachers in the summer sessions can profitably take one week off to attend this great meeting of the N. E. A.

The active membership list for Nebraska is increasing continually. Nearly every week some new names are added. It requires four dollars for the first year to become an active member of the N. E. A., and two dollars thereafter per year to keep up the membership. In return you receive without extra expense the published annual proceedings (very important), the published list of all active members, your name included, and become a voting member of the Association, eligible to all the offices. Speak to any active member and he will advise you how to proceed to become active. As you probably know, the N. E. A. is no respecter of sex. All privileges and offices are open to women the same as to men.

For further information write to G. W. A. Luckey, Head Professor of Education, University of Nebraska, Lincoln; State Director for Nebraska.

FUNDAMENTAL CONCEPTS OF ALGEBRA AND GEOMETRY.

W. C. Brenke.

II. Saccheri in 1732 gave the first recorded systematic attempt to show the truth of Euclid's parallel postulate. Proceeding on the assumption that the postulate is not true, he attempted to arrive at contradictory results; the attempt was a failure, a self-consistent geometry different from that of Euclid was shown to exist, and yet Saccheri could not bring himself to realize and admit the fact. Much as the astronomer, puzzled by discrepancies in the times of eclipses of the moons of Jupiter, required fifty years to hit upon the simple idea that light takes time to travel, so it was many years after Saccheri before the geometers solved the mystery of the parallel postulate by simply discarding it and noting the consequences. These can be varied indefinitely by merely changing what is substituted for the discarded postulate, so there may be many non-Euclidean systems. Two such systems are treated at some length in a number of current volumes.

It may be of interest to see how such geometries are derived. For this we can not do better than to go back to a theorem of Saccheri's, which reads:

"If two equal perpendiculars are drawn to a line in a plane, the line joining their extremities (call them C and D), makes equal angles with them and is bisected at right angles by a third perpendicular drawn midway between the first two."

The proof of the theorem is simple, it follows directly from super-position, and does not involve the parallel-postulate. The theorem says that the angles at C and D are equal, but their common value is undetermined. If now we assume the parallel postulate, it at once follows that they are right angles; conversely, if we assume them to be right angles, the parallel postulate, and with it all of Euclidean geometry, follows.

Three hypotheses are possible concerning these equal angles, (a) they are acute, (b) they are right, (c) they are obtuse. The middle one is that of Euclid. Some of the more immediate consequences of these hypotheses are:

1. If a quadrilateral has three right angles, the fourth angle is, (a) acute, (b) right, (c) obtuse.
2. The sum of the angles of a triangle is (a) less than, (b) equal to, (c) greater than two right angles.
3. Through a point without a line the number of parallels to the line that can be drawn is, (a) indefinitely many, (b) just one, (c) none.

These systems of geometry are exemplified by:

(a) The geometry on the plane in Poincoire's hypothetical universe; in the geometry of figures formed by shortest lines on the pseudo-sphere, a surface gotten by rotating a tractix about its asymptote.

(b) Plane Euclidean Geometry.

(c) Geometry on the surface of a sphere.

Which of these hypotheses fits our universe? If in the space accessible to our measures a single triangle can be found whose angle-sum is just two right angles, the same will be true of all triangles and our space is Euclidean. Otherwise it is non-Euclidean. But we can not measure a mathematical triangle, hence can not answer the question. Euclidean geometry seems to meet all practical requirements and is the simplest, so we adopt it. We can never expect to prove that it is the actual geometry of the space in which we live.

SELECTING TEACHERS.

With the increasing complexity of the course of study in high schools and the short average term of service of public school teachers, school boards are brought annually to face a serious problem in the selection of new teachers. There are two problems involved. The first is to find candidates who give promise of being successful instructors. The second is to select a group of teachers whose preparation is such that they can supplement each other in a plan of class schedule that will provide the best possible daily program for the greatest number of students, at the same time permiting each instructor to reach the subjects of best preparation. The latter is of special importance this year in view of the new law requiring city teachers to have special certificates for the subjects they are to teach.

In order to aid school officers in securing properly qualified teachers, both as to ability as instructors and preparation in subject matter, the University maintains a bureau that makes a special study of these problems. Graduates and students who are desiring positions as teachers are listed in an index arranged by subjects and groups of subjects so that it is known who is available at any time for any combination of subjects. Confidential reports are secured as to personality, preparation and experience. Recommendations are made on the basis of these reports. The list of candidates includes not only members of the present graduating class, but former students and graduates.

Since the establishment of the Teachers College High School, all graduates have had from one semester to a year of experience as teachers in this practice school, under the direction of the department ment of practical education and with the supervision of specialists in the various departments of the University. On recommendation of Superintendent Stephens, a year of this practice teaching has been accepted by the Lincoln school board as meeting the requirements of experience for eligibility to appointment in the Lincoln schools.

In recommending teachers from the list of the current class, special attention is paid to the reports of the supervisors of the practice teaching. Departmental instructors make recommendations as to scholarship and other qualities that appear in the class room. An investigation is made each year of teaching service, both before graduation and subsequently. These reports, together with reports of inspectors, and confidential reports from superintendents and other school officials, make a safe and reliable source of information as to a teacher's record.

No charge is made for the services of recommending candidates. School authorities can receive impartial assistance without expense to themselves or to the candidate, on application. There is no reason why any student in the University of Nebraska, present or past, should be compelled to pay a commission to any one to secure a position. The University is prepared to give as reliable information concerning any candidate as can be secured from any source. It can be secured by school officers without obligation or expense to them or to the candidate. The only purpose of University authorities is to aid both the students and the public by placing the teachers where they can render the best service and meet with the highest possible success.

Progressive teachers, principals and superintendents are finding it greatly to their advantage to spend the summer in study.

The University of Nebraska

SUMMER SESSION

June 14 to August 9, 1912 Registration June 14-15

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Entrance Requirements to the Summer Session—Admission is granted without examination to graduates of accredited schools. Full admission, thirty points; conditional admission, twenty-four points. September 1, conditional admission will be advanced to twenty-eight points. Applicants 21 years of age may be admitted on approval as "Adult Special" students without reference to a degree.

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Special session of eight weeks at the University Temple. A secondary school offering instruction to high school students and young teachers in all important secondary subjects. Normal training course. Separate departments for students carrying academic subjects and for teachers wishing normal training. Well-qualified instructors selected from successful superintendents, principals and teachers of Nebraska. Apply before June 1 to insure admission.

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COLLEGE OF ARTS AND SCIENCES EDITION

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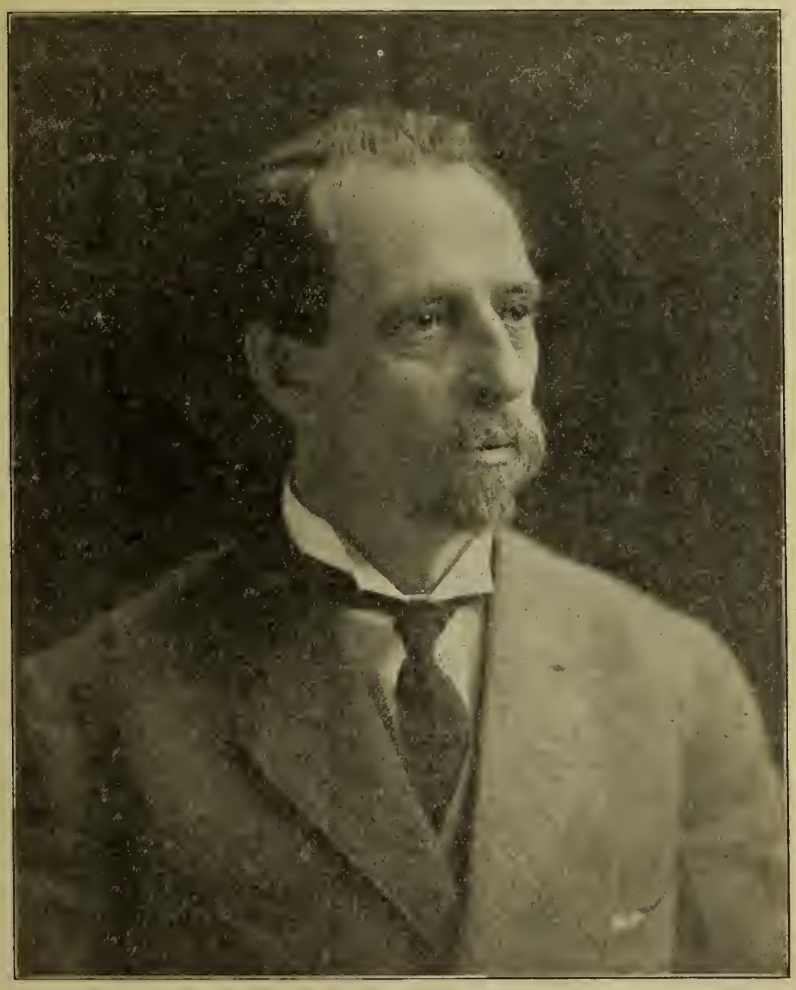

Ellery W. Davis, Ph. D.
Dean of the College of Arts and Sciences

THE FUNCTION OF THE COLLEGE OF ARTS AND SCIENCE.

Glance for a moment at the general scheme of education.

In the kindergarten and primary grades the aim is to stimulate interest, curiosity, co-operation, through the development of the play instinct. Routine and grind are to be avoided as leading to destruction of spontaneity and life, to arrested development, to loss of learning and absorbing power. Memorizing here and even later should be incidental, a result of learning and forgetting and learning over again in ever varied ways.

In the grammar grades there will be more of formality. This is the period for the formation of fundamental habits of thought, of study, of action, of expression. Language study should be prominent, especially the mother tongue. At this time speaking rather than writing should dominate; nor should it ever be forgotten that the printed page is but the symbol of the spoken words. The child's mind is still plastic and should be kept so. Ideals will be formed not so much by precept as example and illustration. Well chosen fiction and biography, drawing and manual training, music, artistic surroundings, nature study, will all help.

The pupils should come up to the secondary school not so much with a lot of things learned as with an abundance of desire for learning. The secondary school is the great tasting and trying period. The pupils are beginning to find themselves. The fundamental sciences can well be begun. Here, too, if not before, is the time for starting foreign language. Some power of thought and persistence in work should by this time have been developed and the development should be continued and emphasized. Though perhaps, even yet, there can be too severe and deadening grind, yet the danger from this is by no means as great as from dawdling. Seriousness of purpose must be maintained even at considerable hazard. Such and such things are to be put to one side, that other things may be more thoroughly studied and enjoyed. For many of the pupils, perhaps for a majority, the vocational idea will become prominent. This is not to be discouraged but utilized to give purpose to the work and to inculcate the idea of worthy service. But some can be led to look further ahead for a more complete preparation, for an eventually more exacting service, accompanied by fuller enjoyment. As a complement to the daily work, granting relief from its grind and interpreting its aim and purpose, taste and judgment should begin their development. He who learns not how to enjoy himself in his work, irksome though it may be, but half knows how to live.

Each stage of study is a preparation for the next and the next. Each is justified rather as leading to something better than as being good in itself. But as the student progresses the work should in itself get more and more worth while, should be felt by him indeed to be so, should be taken more and more seriously and earnestly. If there be failure in this something is going wrong, there is a misfit, either the student or his training should be changed. Not all indeed will or should keep on through the high school. Still less can all go on to the college, howsoever delightful that might be.

From those who do go on there is a modicum who are looking to culture before eventually entering on their callings. It is for these especially that the College of Arts and Science opens her doors. Here those who have acquired some taste, some power of thought, some judgment, may still further develop these qualities, may gain and keep their poise through life by learning something of the best that has been said and done in art, in science, in literature, in philanthropy, in philosophy. Tasting there should still be, as all through life, but most of it should be retasting, and the digestion needs to be fairly complete and the resultant productivity considerably in evidence. With heightened powers of discrimination and enjoyment there should be a heightened desire to place this at the service of one's fellows and the state. If, therefore, work at this stage is to be worth while, there should at least be a tendency toward specialization and thoroughness. Most students should really have found themselves, should be looking toward their life work; few there be who can afford the delights of dilettantism. Earnestness without breadth is surely better than breadth without earnestness. But both earnestness and breadth are desirable, both are possible, both are to be encouraged. The mere specialist is never the best specialist. He is liable to be unsympathetic, failing even to get a true and balanced perception of the import of his own work, failing to enlist the co-operation of others in that work, failing to render that service which he might render could he but take a broader and more humanistic view of life and his place therein.

It is peculiarly the function of the College of Arts and Science to maintain this breadth in earnestness, this earnestness in breadth. It is for us of the faculty to cultivate it in ourselves that we may likewise cultivate it in our students. With unremitting devotion, each to his proper work, it is nevertheless to be realized that the work of each is but a small part of the great whole. In this whole nothing is without its value and one's own work is merely most important, as it should be, to one's own self. Why, no one of us would be free to specialize were not someone else doing the things that our specialization left undone. And some of these are things that are necessary even for the specialization itself.

Perhaps of all the sciences mathematics is the narrowest. Yet it feeds on all and they on it. To change the metaphor, in the great structure which modern science is rearing, mathematics is at once the foundation, the cement which binds the parts together, and the cornice which crowns all. Yet, without these other parts the building would be nothing; nay, mathematics itself would be merely "hypothetico-deductive," a play upon words, the science in which one neither knows what he is talking about or whether what he is saying is true.

Is mathematics an exception? Is there not a philosophy that is mere idle dreaming helpful to no one, a philology that knows nothing but the dative case, an art that is merely antiquarian and dead, a religion that stifles the life of the soul? In all science, in all art, in all literature, in all human endeavor, the many are brick-layers, only a few are architects.

But we are told that the College of Arts and Science is a failure; that only vocational work can enlist the interest of students; that life is too strenuous to waste four years in contemplation; that a real man wants to be doing something worth while, and cares not to become a Preacher or a Professor or a gentleman of leisure.

Let it be granted that some have not the disposition or the previous training or the earnestness or

the far-sightedness to profit by a broad and liberal course of study. Let it be granted that the demand for trained specialists is indeed increasing. What does it all mean but that we are to improve the College of Arts and Science, that we are to enable it to more truly fulfil its function. For there will never be a time when the world will not need broadly trained men and women. They are needed to enable various sorts of specialists to understand each other and each other's work, they are needed to enter into lines of endeavor, constantly more and more opening, for which only a combination of specialization suffices, they are needed to enable the world to understand itself, its history, its thought and feeling and art, its development, its destiny.

Notice that I said broadly trained women. Even if, which Heaven forbid, all the men should be diverted into specialization, we have the women to provide for; and these with their divinely given common sense and mother-wit, will always, I believe, set a value upon culture. May not this growth in the liberal education of women, combined with their advance in matters social and political, be the very thing that is preparing for the coming civilization, the coming state. May it not be the one thing that will hold society together, where short sighted specialization would tend to rend it into fragments? Chesterton has said that "woman is the great amateur whose motto is 'whatever is worth doing at all is worth doing badly.'" Let us improve on that turning "badly" into "well," and let some of us indeed join with her in that earnestness in breadth without which the highest good is forever unattainable.

Thus then, I believe, the College of Arts and Science will always have its place. It were ideal if all, even those who afterwards specialize, could have at least two years in that college. It would make them better specialists. And some can well afford the four years of broadening. Indeed, it is probable that an even larger number could afford this than actually do so. Perhaps I had better say, so large a number can ill afford to do without the culture so freely offered them. Never again will such opportunities combined with such power of learning be put before them. And in after life grinding toil may deaden the very soul and render full and rounded existence impossible. Verily, "wherefore is there the price of learning in the hands of a fool, seeing he hath no heart for it"; for

"Wisdom is radiant and fadeth not away;
And easily is she beheld of them who love her,
And found of them that seek her.

She forestalleth them that desire to know her, making herself first known. . . . For to think upon her is perfectness of understanding and he that watcheth for her sake shall quickly be free from care. Because she goeth about, herself seeking them that are worthy of her; and in their paths she appeareth unto them graciously, and in every purpose she meeteth them."

ELLERY W. DAVIS.

ENTRANCE REQUIREMENTS

As modified by the University Senate at a recent meeting the entrance requirements to the College of Arts and Sciences which become effective September 1st, 1912, are as follows:

Required	Points
English	4
History (European)	2
Language (Foreign)	6
Mathematics	4
Science (Laboratory)	2
Elective	
Other subjects taught in an approved manner in an accredited secondary school	12
Total	30

Full admission is granted on the presentation of thirty points, properly distributed. Conditional admission is permitted on a minimum of 28 points. In each instance the candidate must be a graduate of a secondary school accredited to the University or of a school of similar rank in another state. All other candidates for regular admission will be required to take entrance examinations.

In accordance with a tendency to eliminate as far as possible one- and two-hour courses from the freshman and sophomore schedules an obligatory program has been prepared for freshmen. This program continues throughout the year.

	First Semester Hours	Second Semester Hours
I. Rhetoric 1, 2	2	2
Military Science (men) or Physical Training (Women)	1	1
II. Ancient Languages	5	5
Modern Languages	5	5
Mathematics	5	5
III. Botany	3	3
Chemistry	2 or 3	2 or 3
Physics	3	3
Zoology	3	3
IV. European History 1, 2	3	3
American History 1, 2	3	3
English Literature 1, 2	3	3
Political Science 1, 2	3	3

Of the above the student is required to take I, two from II and one of III. Should he wish to omit Mathematics he may select an additional course from III and one from IV.

At the beginning of the sophomore year each student is required to select a department in which he will complete a major of 24 to 32 hours and two minors of 12 to 16 hours in each of two departments. One subject, aside from Rhetoric and Military Drill or Physical Education taken in the freshman year must be carried in the sophomore year.

A group of subjects designed for broad culture must be met by all students before graduation.

		Hours
A	(1) Mother Tongue	6
	(2) Classics (Greek or Latin)	10
	(3) Modern Language(other than English)	10
B	(4) History	6
	(5) Philosophy	6
	(6) Political Economy or Political Science	6
C	(7) Exact Science (Astronomy, Mathematics)	10
	(8) Physical Science (Chemistry or Physics)	6
	(9) Biology (Botany or Zoology)	6

By the close of the junior year each student shall have completed at least six of the nine groups. Two groups must be taken from each of the divisions A, B, and C.

Candidates for degrees who wish to secure the University Teachers' Certificate register in the Teachers College at the beginning of the junior year at the same time retaining identity in the College of Arts and Sciences. By completing the required work upon graduation from the latter college he receives the

University teachers' certificate from the Teachers College.

The demand for cultural subjects iu the professions has led to the establishing of combiued courses in law, medicine and engineering. These courses cover a period of six years leading to the Bachelor's degree from the College of Arts and Sciences in four years and the professional degree at the end of the sixth year This same demand has caused to be established a four-year course in pharmacy which combines cultural work with technical training.

THE PLACE OF THE ARTS COLLEGE

In a university like ours we are in danger of misunderstandiug some things pertaining to educational problems, and one of these is the place of the College of Arts and Sciences. This is due to the fact that iu the organic law no distinction is made as to the nature of the several colleges which constitute the University, and quite naturally the feeling has arisen that, with the exception of the Graduate College, all are educationally equivalent. This is, however, not a tenable educational theory, and it would be well if the proper relations could be clearly understood aud sanctioned by the people of the state, as well as by the students themselves who are immediately concerned.

As I study the constitution of the University of Nebraska it appears to me that it is composed of three types or kinds of colleges, and that we have made a rather serious mistake in not recognizing this fact. There is first the **general college** type, represented by the College of Arts and Sciences; second the **professional college** type, represented by the Teachers College, the College of Agriculture, College of Engineering, College of Law, and College of Medicine; and third the **university college** type, represented by the Graduate College. The mutual relationship of these may be shown as follows:

Arts College	Teachers College Coll. Agriculture Coll. Engineering Coll. Law Coll. Medicine	Graduate College

It appears to me that it is educationally desirable that every student should first take up the Arts course, which should include the constants of college instruction and training, and follow this by his professional course, and still later this might be followed by the university (Graduate) course.

In carrying out this educational scheme it should be possible for the student to attain his professional degree in six years from his eutrance to the freshman year of the Arts College, followed with two more years in the professional colleges, or two or three years in the Arts College, and four or three in the professional college.

CHARLES E. BESSEY.

VOCATIONAL CHARACTER OF THE COLLEGE OF ARTS AND SCIENCES

The College of Arts and Sciences always has been a vocational or technical college.

The purpose of the Arts College always has been to train men for those very professions that demanded a liberal education rather than highly-specialized knowledge. Such professions were originally those of the ministry, teaching or educational administration literature, and statesmanship.

The professions for which the Arts College prepares have changed since the earlier days of that college.

Within the last generation especially, the field of the Arts College graduate has broadened to include various lines of business administration. The demand for new vocational specialization within the College of Arts and Sciences is merely the demand that this new group of professions be recognized in the curriculum of the college.

There is no necessary conflict between a liberal education and vocational training.

Vocational training will not turn the Arts College into a commercial college. A liberal education is a proper aud valuable asset of any man going into any of these lines of business or social administration. The subject matter for vocational specialization is already taught within the Arts College. All that is desired is that this subject-matter be so grouped and so presented as to prepare for work as well as for life; that breadth be joined with, but not sacrificed to, concentration and efficiency. The better citizen is the one who combines sympathetic breadth of learning with efficient specialization in his own particular line of life-work; who realizes the setting of his own occupation in the general scheme of things. This is possible, and inevitable, within the College of Arts and Sciences.

CLARK E. PERSINGER.

THE ARTS COLLEGE

The Arts College uses such phrases as "culture," "the training of the mind," "the development of the spirit," in its attempts to formulate the purpose for which it exists. But for the student they are, at the best, but phrases. As for the arts faculty themselves, whatever their individual conceptions may be, they make as a faculty no such conclusive demonstration of their own clear sense of the meaning of those phrases as would emerge, say, from a fixed curriculum. For this reason the Arts College suffers by direct comparison with the technical school. The student, for all his boyish assumption of independence, looks to the college for guidance and the technical or professional school gives him guidance—one study leading to another in a definite order, and all leading to a definite end. But the Arts College gives him none.

The advantage that would come from such a definition of the arts curriculum is manifold. In the first place it would imply a definite sense in the faculty of what the college is driving at—a sense far from definite today. In the second place it would tend to define for the student the end he himself was driving at—a knowledge he is far from having today. Third, with a series of studies piled one upon another in a definite order, all leadiug to a defined end, there would be the double advautage that there would be some structure of knowledge building in the student's mind, and the instructor would know with precisiou what he was helping to build. He would know exactly what he was building upon, and what he was building up to. Knowledge is organic. It can come to anything only if it is placed with wise judgment upon definitely known preliminary knowledge, and leads up to clearly anticipated subsequent knowledge. Wisdom is structural, not piecemeal. If we should examine the curriculum of any school that knows definitely what it is driving at we should discover a recognition of this fact in a correlation of studies—these first, these next, these next. It is true in the law school, the medical school, the en-

gineering school. But it is not true in the Arts College.

As it is, in the Arts College, an instructor, looking over his class as it comes to him after registration can be sure of only one thing—that no two students have been prepared for that class by the same previous instruction. As to what they have studied outside his own department he has no idea. In all matters pertinent to his function they are perfect strangers. There has been much talk in recent years of the value of close relationship between teacher and student. The result has been an unprecedented amount of association but almost wholly in affairs irrelevant to the case—smokers, dances, athletics—while the real breach, so fatal to effectiveness of relationship, has been constantly widening.

What is essential would seem to be an intellectual sympathy which would make what the instructor says in the classroom come home with intimate appeal to the heart and mind of the student as he sits day after day in the presence of a revelation of mind and character that no casual social intercourse could reveal. As it is, the learner comes to the teacher with a mind unprepared for the only real acquaintance which would be possible between them. And the teacher for his part, though he were omniscient and knew the mind of every student before him, could reveal himself to but two or three, so diverse is his class in the one thing essential to their relationship—intellectual preparation to understand what he has to give them.

To bring about effective disciplinary conditions in the Arts College will require a curriculum largely fixed; but to fix a curriculum means to have determined clearly the purpose of the college, and that purpose would undoubtedly not suit the aims of many of the students who, coming from many places, from many homes, and with many ambitions, have desires not met by any of the established professional schools, yet still desire training in branches which the Arts College at present provides. I see no reason why those branches excluded from a fixed arts curriculum should not combine into colleges for other purposes, having, if they desire effective discipline, fixed curricula of their own—a college of business, a college of fine arts, a college of education, etc.—and having degrees of their own, clearly labeling their graduates as having passed through a discipline to a clearly defined end.

But these are not the Arts College. The aim of the Arts College is not vocational, but moral. The field of morals is conduct and human judgment of human relations. Discipline to this end implies two things: the training of the mind to think clearly; and the storing of the mind with the best that has been thought and done in the past. The first of these ends is served by mathematics, and also by all the other studies that would be included in the curriculum. But these others serve also the second end. Science should be included among them, but rather in general courses that give a survey of their methods, and significance, and conclusions, than in the minute details which the student who will never use them later will immediately forget. What the arts student, whose concern is moral, not technical, desires is their human, their philosophic significance, rather than their detailed information. The greatest stress of the arts curriculum, however, will always be upon those branches of learning which reveal human experience and human thought—upon literature, history and philosophy.

However much modern science has tended to discredit these studies as vague and indefinite, susceptible of no genuine intellectual discipline, they come nearer than science to training the student in the kind of thinking which is to be involved in the judgments which guide his life, and which guide all men in the determination of private and public conduct. For they inform him of the data upon which those judgments are based, and they train him in the kind of thinking proper to that kind of data. Literature is popularly thought of as a form of amusement, but in the college it is taken with intellectual seriousness. It is revealed as the text-book, so to speak, of human nature. You can not isolate love and hate, anger, pride, loyalty, ambition, justice, wisdom, love of truth, in the laboratory. You can not put your finger upon them. They have no existence save in a man's breast, and they exist there only in connection with action. As a consequence you can find them revealed only in those records of action which we call literature and history. How momentous they are in human life can be judged when we realize that they and their kind are the sole determinants of all that action which lies above that involuntary conduct called physiology. In other words, they are the determinants of that aspect of life that is distinctively human. They are the determinants of civilization. Philosophy is the type of thinking which deals intellectually with that human data.

It is these studies, then, that the Arts College must ever deal with to the development of wisdom in its students. As for the importance of such a discipline I can conceive of nothing of so much moment for a state. It may be desirable for a state to have good lawyers, good engineers, good doctors, goor practitioners in every branch of activity. But of these it may be said that there is no assurance but that their ability may be active against the public welfare rather than for it. Of the discipline which makes for wise judgment, however, the state is assured of an asset that it can count upon. Its end has been, not a specific ability, but character.

SHERLOCK B. GASS.

THE ARTS COLLEGE.

Perhaps the youngest and hence the most painfully insistent child of our Industrial Democracy is Efficiency. From the workshop and counter, the places she may be claimed to rightly adorn, she crept first into our technical and professional schools, then into our public schools, forcing them to rearrange an already crowded curriculum to make room for "practical studies that fit one for life," domestic science, manual training, and the like. So far she has done well. But now she clamors at the door of the Arts College. And her cry is the same, only slightly modified—specialization, training for such professions as are unprovided for in technical and professional schools. There are, so she argues, few places where an ambitious man may fit himself for journalism, or the consular service, or for the hundred and one other professions that are unprovided for in places like those where one may receive a degree in divinity, law, medicine, or engineering. Now the Arts College is not striving for any object in particular, so she argues, why not, in keeping with the spirit of the times, admit her, and give to the Arts Degree some definite content in terms of

Efficiency? A very slight rearrangement of courses will suffice, group these and those, and, we know, there are courses enough for what groups you will; add a few more, if necessary; but publish to the student that a diploma from this college means more than an aimless ramble through Language, Mathematics and Science, with here a polish of English, and there a delve into philosophy. Such is the cry of Efficiency.

It is strange, is it not, that this college, the mother of all colleges, should thus have to give an excuse for her being, that this efficiency, which at the beginning was the last word in her vocabulary, should now come threatening her very existence.

It were idle to say that the Arts College, as we now know it, is perfect, or near perfect. But shall we strengthen its influence for good if we commercialize it? Or before we decide would not it be more in keeping with its traditions to enquire what were its ideals, whether those ideals are worthy today, and whether it can in a measure readjust these ideals to modern conditions?

We have all admired Chaucer's idealized picture of the Oxford scholar, whose love of learning and devotion to Aristotle and his philosophy was so great that for it he would sacrifice all the finery so dear to the student's heart. And though far from efficient in the gospel of getting on, he was far from inefficient in his understanding of the meaning of life. It was men of his kind that gave us the foundation upon which was built, and only upon which can be built, the superstructure of our industrial and scientific civilization. From the earliest times the problem of the college has been patient investigation of the problem of life, and its ideal the ability "to see life steadily and to see it whole." Hence the old college required a severe discipline in the essential humanities—the literature, the science, the art, that give the broadest and most nearly true outlook on life. Latin and Greek, because Latin and Greek gave a whole, balanced civilization, upon which one might look from the distance of time with eyes dispassionate, cleared of prejudice.

Is this ideal an impracticable one today? In the rush of our highly specialized civilization, who has time or training for this broad outlook on life, which alone can lead to an understanding of its true significance, or its true enjoyment? Who can clearly distinguish between a true enjoyment of life and a mere wasting of time? To balance the centrifugal forces of specialization we need the centripetal force of humanistic culture. This is the vital defect the new Arts College is called upon to supply.

It is not my purpose to quarrel with the student who comes to college with his life's work cut out for him, who knows what he wants; and wants it in the shortest practicable time. For him we have the technical and professional schools, the schools of journalism, of commerce, of industry of what ever kind he desires—we have these or should have them. But for the man who desires to be a student, but as yet knows not where to turn his energy, for him we need the Arts College as a place where he may find himself and his relation to the world, where he may learn to be a gentleman and a scholar first, let specialization come later, if he so desires. The four years browsing in a variety of studies will prove far from harmful or a waste of time, for by its means he will come to learn his powers and weaknesses, to develop those and to strengthen these; and a course in the humanities such as outlined by Professor Gass, based upon the traditions of the past and completed by the achievements of the present, will prove the surest way to intellectual emancipation, the surest test of true culture.

PHILO M. BUCK, JR.

THE FUNCTION OF THE ARTS COLLEGE

The "college" was formerly, to a considerable extent, a gentlemen's school, and the liberal arts education was regarded as the gentlemen's proper training. There was associated with the college ideal an ideal of caste privilege which has resulted in the arts training being viewed as a selfish culture of the individual, a private luxury rather than a public necessity. Obviously no democratic society is justified in supporting with public funds educational "special privileges"; if the arts college is to flourish in a state institution, this must be (1) because the people of the state find it to the state's advantage to possess citizens educated in the liberal branches, and (2) because the students who receive the training regard their education, not as a personal indulgence, but as a social trust. Convince the people of the state that their general welfare is furthered by the college, and they will generously support it; convince the young people of the state that the benefits to be derived from the college are genuine and more than personal, and they will not begrudge the few years it may detain them from their private vocations.

It should be no difficult task to create these convictions. Men cherish their national traditions, their religious traditions, their civilization. And the perpetuity of civilization is directly dependent upon liberal education. That society which materializes, which "vocationalizes" its culture, loses it. Broad thinking is essential to sane citizenship, and broad thinking requires as its foundation an acquaintance with human history,—politics, literature, philosophy, science, art,—an intimate and reflective acquaintance for which four growing years is a little price in time and energy. There is a great sentence in Aristotle's **Politics**, which might well serve as the motto for any state institution devoted to liberal learning. "He who would duly enquire about the best form of a state ought first to determine which is the most eligible life." The citizen who is capable of forming sound judgments upon questions of public import, who is capable of acting wisely where the welfare of state or nation is in question, that citizen is he who has first thought seriously and inquiringly into the whole problem of human life and, to the best of his powers, has made choice of the best—for, says Aristotle, "the best is the most eligible." It is the one function of the liberal arts training to enable the more intelligent choice; and this function should be, and is, its eminent justification to society at large.

H. B. ALEXANDER.

THE PRACTICALITY OF THE ROMANCE LANGUAGES

The Romance Languages offer, aside from their cultural value, a variety of lines of work in the professional and commercial world. Proficiency in French and in Spanish, especially, finds a wide range per se in teaching, translating, editing and interpreting. There is a crying need for more teachers of French and of Spanish, and a decided dearth of efficient instruction. The numerous requests for translations, largely from the commercial world, that find their way to a teacher of French and Spanish in a mid-west section—and occasional requests for editing or even interpreting—lead naturally to the

conclusion that governmental and cosmopolitan centers must offer great opportunities to those versed in modern languages. While English may be fast gaining claim to the title of "the commercial language of the world," French long has been and still is the world language of diplomacy. The diplomatic service calls for examinations in French or Spanish, or both, as well as in history, international law, etc. Military and naval schools expect an acquaintance with French, Spanish and other modern languages. Our rapidly increasing interests in foreign lands, in commerce, in industry and in missions, attest daily the advantages of being able to deal with foreigners in the world language, French, or in their own language —which, in the case of Mexico, Cuba, the Philippine Islands and South America, is Spanish.

CLARA CONKLIN.

PHYSICAL EDUCATION

The University of Nebraska boasts of the only Normal School of Physical Education of its kind in America. True there are schools where physical training is taught but these are purely what the name implies, schools of physical training. They do not provide their students with courses which make for an A. B. degree, nor are they so situated as to give the all round development which is possible at a state university such as ours. This department of physical education was founded in 1898 by Mrs. Anne Barr-Clapp and Dr. Clark. Since that time it has graduated forty-five women equipped with A. B. degrees who have engaged in the work of physical education with good success. The popular idea that the course is designed with an idea toward physical development only is dispelled by an investigation of the requirements for this work. The student of this special course must take chemistry, zoology, physiology, philosophy and human anatomy, along with the requirements for graduation.

At the present time the demand for physical directors, play-ground supervisors and athletic instructors is very much greater than the supply, therefore graduates from this normal course have never had the slightest difficulty in securing good positions. Only progressive localities recognize need of such training, so the work always falls in pleasant places. Indeed it is very doubtful if any department secures more remunerative or more agreeable positions for its graduates than does the department of physical education.

The general work of the women's department is well understood, two years of physical training being required of all women students. In this connection the physical and medical examinations are particularly valuable, as well as the general supervision of the health of women.

Athletics are necessarily curtailed by the lack of any outdoor facilities, but in spite of this, practice in basketball, indoor baseball, volley ball and simple track events is carried on indoors. The first outdoor meet including games, individual competition and inter-class races open to all university girls was held May 10th, 1912, and will be an annual event for the interest was so pronounced and the entries large.

THE EFFECTS OF ATHLETICS ON PARTICIPANTS.

Raymond G. Clapp, M. D.

My experience of nearly twenty years with competitive athletics fails to corroborate the Surgeon General's conclusions that competitive athletics, as conducted in the Colleges and Universities of the United States, are harmful to any considerable percentage of the participants. No one who is familiar with this important subject will contend that serious injuries, either immediate or remote, do not occur in exceptional cases. In the opinion of the writer, however, nearly all of these cases that are fairly attributable to athletics can be traced to one or more of the following causes: too little preliminary training or the opposite condition, i. e., excessive overtraining, a lack of proper medical supervision, the exaggerated importance placed on victory, or a considerable number of similar causes—all of which may be eliminated, and are being gradually eliminated in those institutions where proper supervision is enforced.

Probably the most important etiological factor in cases of remote physical breakdown and premature death among college athletes is the sudden cessation of all physical activities and close devotion to sedentary occupations immediately after graduation. It is manifestly unfair to attribute these untoward results to athletics. They should be charged either to ignorance of the possible danger on the part of the individual or to a lack of common sense. It is often said, too, that strenuous athletic competition produces a muscular development and heart and lung power that are useless and dangerous for ordinary life. This is undoubtedly true if the individual suddenly changes to a life of physical inactivity. I believe that this hypertrophy of the muscular system and vital organs is entirely natural and that it is accompanied by ability to perform superior mental as well as physical work—particularly the ability to work under high pressure, which is a necessary qualification for success in all lines of business and in the professions. Sudden changes to physical inactivity, as well as strenuous physical work following long periods of rest, may result disastrously and in the former case degeneration of the hypertrophied tissues is bound to follow. This degeneration may, or may not, be such as to produce serious consequences. Regular systematic exercise adapted to the particular individual and modified to meet the advancing periods of life should make possible the retention of this increased vitality produced by athletic exercise and should tend toward longevity rather than premature debility or death. In other words, the most common ill-effects of athletic competition may be avoided and the benefits of the work retained for valuable future service to the individual by proper methods of living. After leaving college the athlete may find difficulty in securing facilities equal to those provided by his alma mater for continuing physical exercise, but certainly all necessary facilities of one kind or another will be available in almost every case and any one who will limit himself to reasonable hours of daily work and who will use a part of his leisure time in this way will, in my opinion, be able to perform all exercise necessary to the maintenance of his health—even in the narrow confines of a man-of-war.

Failure of athletes to continue moderate physical activities after graduation is in reality nothing more or less than the exaggerated reflection of our national temperament and due to a lack of interest in modern exercise devoid of the artificial excitement of keen competition and the applause of the spectators.

This spirit of Americanism, as shown in athletic training in our colleges, has, however, its merits as

well as demerits. The student makes a business of his competition for a place on the team; he puts his whole heart and soul into it; no sacrifice is too great for him to make. As a result he develops a spirit of thoroughness and "stick-to-it-iveness" that is of inestimable value to him in after-life when he is confronted with some perplexing problem, civic, business or professional. He has learned to despise a "quitter" and will see the problem solved regardess of the effort necessary to accomplish it. I would not exchange this training which I obtained on the Yale Field for my best course in college (and this is not written disparagingly of the thorough and valuable instruction which I received in the Sheffield Science School). These factors in character building are often overlooked in considering the merits of competitive athletics, but I believe that they are of sufficient value to more than counterbalance many of the possible physical injuries.

The more strenuous sports—such as football, rowing, basketball, long distance running, etc., consist of two distinct parts—so far as the effect on the contestant is concerned. One is the physical training in preparation for the contests; the other is the competition itself. In preliminary training, as generally conducted, there is not sufficient tendency toward overwork as to make this an excessive strain on the system and the result is almost universally beneficial—barring, of course, such accidents as may result from violent personal contact in football, basketball, etc. On the other hand the exaggerated importance placed on winning contests causes an abnormal nervous excitement and overwork which is often carried to the point of severe exhaustion. This puts such a strain on the vital resources of the individual that the result must be temporarily detrimental—and in exceptional cases—particularly among those physically unfit to take part in such strenuous activities—the result may be permanent injury. These two effects are, of course, diametrically opposite. In my opinion the net resultant of these two forces diametrically opposed—so far as their effect on the system is concerned—is decidedly beneficial to the individual. Undoubtedly greater physical benefits would result if we could eliminate the competition itself. However, without the pleasures and applause derived from the competition the large majority of our students would refuse to continue the more moderate exercise of the training period. The solution of this particular phase of the problem lies in the education of the student body and the general public to see the necessity of minimizing the importance of victory and emphasizing sport for sport's sake. This is being accomplished to a considerable extent in a number of our colleges, by the encouragement given to intra-mural athletics. This furnishes exercise for a very much larger number of students and divides the athletic interest among many contestants in a number of different sports instead of centering it on the few members of a "varsity" team. By these means, the tendency to overdo is greatly lessened and we correct also one of the most reasonable criticisms that can be made against college athletics, namely—that we have been conducting athletics for the benefit of a few physically superior men instead of the rank and file of the students who need it most.

I think there is serious question as to the wisdom of allowing boys of high or preparatory school age to take part in rowing, long distance running or basketball contests under the present rules—if the competition is keen. This is also the period in an athlete's life when the need for medical supervision is greatest and we find it to be the one where the least is provided.

Our athletics are by no means conducted ideally at the present time, but I believe the general effect to be decidedly beneficial; furthermore, those in charge of this important branch of college activity are keenly alive to the real evils and needs, and conditions are gradually improving year by year.

The more important beneficial effects, injurious effects and remedies for the same may be summed up as follows:

Beneficial effects:

(a) Better general health.

(b) Increased ability to perform muscular work.

(c) Increased ability to perform mental work.

(d) Character development.

Injurious effects (part of these are not fairly traceable to athletics):

(a) Immediate and temporary physical injury.

(b) Permanent and remote physical injury.

(c) Applause of fellow students apt to give athlete an exaggerated idea of his importance in relation to his fellows.

Remedies:

(a) Careful medical examination before participation in strenuous physical activities is allowed.

(b) Careful medical supervision to prevent under-trained or over-trained students—or those otherwise unfit—from taking part in competition.

(c) Education of athletes to understand the necessity of continuing some form of physical activity after graduation.

(d) Development of intra-mural athletics in order to minimize the tendency to overwork.

A FLORA OF NEBRASKA

At last we have a little book dealing with all of the native flowering plants of Nebraska, written for the use of pupils in the high schools. It has been prepared by Mr. N. F. Petersen, M. A., now instructor in botany in the Louisiana State University, formerly the curator of the herbarium in the University of Nebraska. During the last few years Mr. Petersen has been giving a great deal of time to the critical study of the flowering plants of Nebraska, and has traveled over the state in order to see for himself the plants that grow naturally in the different sections and has now brought out the results of his studies in the form of a pretty little book of a little more than two hundred pages, in which every wild flowering plant is definitely named and located in the state. The mode of treatment is to use simple keys so as to make it very easy for teacher and pupil to find the name of the plant, and there is enough descriptive matter to enable one to be sure that he has come to the right conclusion. In addition there is a reference to the page in Britton's Manual where the species of every genus are more fully described.

This little book should give a great impetus to the study of field botany in the Nebraska high schools.

CHARLES E. BESSEY.

High school students desiring to make up entrance credit will find an opportunity under most favorable conditions in the summer session of the Teachers College high school.

PRESIDENT OF THE CLASSICAL ASSOCIATION

We take pleasure in announcing another honor which has come to the University of Nebraska through the election recently of Professor Grove E. Barber, Head of the Department of Latin in the University, to the presidency of the Classical Association of the Middle West and South. This association was organized in April of 1905, for the purpose of fostering interest in the study of the classics and of keeping in touch with the methods, discoveries and general advancement in everything pertaining to the cultural and humanistic side of education. It has grown in size and importance until its member-

PROFESSOR GROVE E. BARBER, A. M.

ship list includes over eighteen hundred names distributed over twenty-eight different states, and its influence is powerful in giving encouragement and direction to the ideals for which it stands.

The conferring of this honor was peculiarly fitting and appropriate. Professor Barber was one of the organizers of the association and has been one of its most earnest supporters from the first. He has always held an official connection with the organization and has contributed both time and effort in bringing it to its present state of influence in the educational world.

Professor Barber was a student in Hiram College under James A. Garfield. Giving up his work in 1862, he enlisted in the Union army and served in Company I. 104th Ohio Infantry, from 1362 to 1865, being present in all engagements and battles participated in by his regiment. Taking up his course again, he was graduated in 1871 and received his M. A. degree in 1874. After one year as superintendent of schools at Rock Creek, Ohio, he was called to a professorship at Hiram College, which position he held for nine years. In August of 1881, he removed to Nebraska and became superintendent of schools at Grand Island. July 27, 1882, he was elected to the professorship of Latin Language and Literature in the University of Nebraska, which position he still holds. In 1886, he served one year as Dean of the Academic Faculty, which position he resigned.

In 1893-4, Professor Barber prepared a "Synopsis and Chart of Latin Grammar," which has had wide use in secondary schools. He has also prepared a college edition of Plautus' "Captives." Professor Barber has been especially helpful to the schools of Nebraska through his connection with the Committee on Accredited Schools, having been made chairman at its creation in 1884 and having served on the committee since that time. In point of service, he is now senior member of the faculty of the College of Arts and Science.

NEBRASKA HIGH-SCHOOL DEBATING LEAGUE.

The fifth annual state championship debate of the Nebraska High-School Debating League, held in Memorial Hall, Friday morning, May 18—High-School Fete Day—was won by Jesse L. Ertel of Geneva, representative of the Central District. Second honors were awarded to Augustus Helmig of Wymore, and third honors to Arthur Ackerman of Lincoln. The contest was very close, five contestants being tied for first place on the first ballot of the judges—Dean William G. Hastings of the College of Law; Mr. Will Owen Jones, editor of "The Nebraska State Journal," and Prof. J. E. LeRossignol, head of the Department of Political Economy and Commerce. The debate was generaly regarded as the best of the five in the League's history.

Prof. M. M. Fogg, president of the League, presided. Music was furnished by Mrs. Carrie Raymond, director of music at the University, who gave an organ solo, and by the University Glee Club. Prof. E. B. Conant of the College of Law was timekeeper. The programme follows, each contestant speaking eight minutes, and then four minutes in rebuttal:

Resolved, That the Movement of Organized Labor for the Closed Shop Should Receive the Support of Public Opinion.

AFFIRMATIVE.

1. Lawrence E. Benson, Minden, Southwestern District.
3. Lee E. Brown, Hastings, Southern District.
5. Roger R. Ryan, O'Neill, Northern District.
7. Adela M. Kellenbarger, Merna, West-Central District.
9. Albert Bryson, Fullerton, North-Central District.

NEGATIVE.

2. Edgar Kiddoo, South Omaha, Eastern District.
4. Augustus Helmig, Wymore, Southeastern District.
6. Glenn Gealy, Gordon, Northwestern District.
8. Jesse L. Ertel, Geneva, Central District.
10. Arthur Ackerman, Lincoln, East-Central District.
11. Philip T. Kohl, Wayne, Northeastern District.

Previous awards in the state debate were:

1908—Arthur Anderson, Wahoo, champion; M. C.

Hargrave, Wymore, second; Isabel Oldham, Kearney and Clayton Burke, Ord, third.

1909—C. S. Radcliffe, Sidney, champion; Paul Good, Wahoo, second; Harvey W. Hess, Hebron, third.

1910—Marie Douglass, Platsmouth, champion; Van Webster, Hastings, second; Jesse L. Ertel, Geneva, third.

1911—Victor Coulter, Wymore, champion; Junius G. Oldham, Kearney, second; W. P. Ackerman, Havelock, third.

Additional district contests to decide the district championships resulted as follows:

East-Central District.

Ashland (winner from University Place and McCook)—Lincoln (winner from Teachers College High School and Havelock). At Ashland. Won by Lincoln, unanimous.

Notrh-Central District.

Fullerton (winner from Hooper and Newman Grove)—Tilden (winner from Albion). At Tilden. Won by Fullerton, two-to-one.

Northwestern District.

Scottsbluff—Minatare. At Scottsbluff. Won by Minatare, two-to-one.

Sidney (winner from Alliance)—Minatare (winner from Scottsbluff). At Sidney. Won by Sidney, unanimous.

Sidney—Gordon (winner from Rushville and Chadron). At Gordon. Won by Gordon.

Southern District.

Western (winner from Ohiowa and Diller)—Hastings (winner from Blue Hill). At Hastings. Won by Hastings, unanimous.

Southeastern District.

Falls City (winner from Stella and Auburn)—Wymore (winner from Beatrice). At Wymore. Won by Wymore, two-to-one.

The fifth annual "Bulletin" of the League will be published early in June. It will contain an account of each of the half hundred debates held since February; the question, which the League schools are selecting by vote, for the 1912-1913 contests, and a selected bibliography on the question. Four copies of the "Bulletin,' (covered by the $2 membership fee) will be mailed to each member of the League.

The summer session begins June 14.

PROGRAM FOR COMMENCEMENT WEEK, 1912

Sunday, June 9

8:00 p. m.—Baccalaureate Address
Rt. Rev. J. Henry Tihen, Bishop of Lincoln — Memorial Hall

Tuesday, June 11

Annual meeting of the Board of Regents.

Wednesday, June 12, Alumni Day

9:00 a. m.—2:00 p. m.—Various Alumni Class Breakfasts and Dinners.

4:00 p. m.—Business Meeting.
Address by Louise Pound, Ph. D., Professor of English Language, University of Nebraska.

5:00 p. m.—7:30 p. m.—Alumni Banquet
The University Farm.

9:00 p. m.—Cotillion. The Temple.

Thursday, June 13, Commencement Day

10:00 a. m.—Commencement Procession.
Commencement Oration, "Citizenship."
Charles Edward Merriam, Ph. D., Professor of Political Science, University of Chicago.
The Lincoln Auditorium.

8:00—9:30 p. m.—Chancellor and Mrs. Avery's Reception to the Regents, Faculty and Alumni. All friends of Chancellor and Mrs. Avery and of the University are cordially invited.
Art Gallery, Library Hall.

Admission to the Various Exercises

Baccalaureate Address. Sunday evening. Memorial Hall. Admission without ticket.

Alumni Address. Wednesday, University Farm.

Commencement. Thursday morning, the Lincoln Auditorium. Tickets reserved for Faculty and members of class. General public admitted after 10:15 a. m. without ticket.

Class Reunions and Dinners. Details announced in the University Journal and during Commencement week in the Lincoln papers.

Alumni and Out of Town Guests. Owing to the size of the class which requires a larger reservation of tickets for them it becomes necessary to limit the reservation of tickets to members of the class and faculty alone. Doors will be open for admission without ticket at 10:15 a. m.

NEBRASKA AT THE N. E. A.

Excellent headquarters have been provided for Nebraska teachers at the Congress Hotel (1112 and 1114, overlooking the lake), where Nebraskans will always be welcome. There will be a meeting every day at 5 p. m. for social purposes. Alumni of the University will find this a congenial place for renewing acquaintances and forming new ones. Chancellor Avery will stop at headquarters and be found there when not otherwise engaged. A number of students and instructors of the summer session will spend the week at Chicago. Nebraskans expect to go by special train. For further information, address Dr. G. W. A. Luckey, State Director, Station A, Lincoln.

REPORT OF SPECIAL CORN TRAINS.

Department of Agricultural Extension.

February 26—March 8, 1912.

Train.	Number	Days	Per Day	No. Towns	Per Town	No. Lectures	Per Lecture
Eastern Burlington	7015						
Southern Burlington	9184	5	1837	43	214	77	120
Central Burlington	11240	4½	1559	40	175	77	91
Union Pacific	12921	5	2248	43	261	109	103
Chicago & N. W.	6751	5½	2350	54	239	107	120
C. St. P. M. & O.	4610	4	1688	35	193	77	87
		3	1539	29	160	58	79
Total	51721	27	1915	244	212	505	102

COMMENCEMENT IN THE SCHOOL OF AGRICULTURE

Commencement week in the School of Agriculture ended April 26. The first event of the week was a joint meeting of the Ophelian and the Davisson Literary societies, held in honor of the class of 1912. The following evening a reception was given the graduating class by the class of 1913. On Thursday afternoon the cadet regiment held its annual competitive drill, in which first honors among the six companies went to company "E," Captain E. C. Nelson. The individual "compet" was won by Sergeant C. M. Gould of Omaha, with T. M. Enyeart of Hemingford second. The rewards for places in the individual drill were splendid silver cups.

The banquet of the Alumni association, held at the Lincoln hotel on Thursday evening in honor of the accession of the new class to the ranks of the alumni, was attended by about 300 alumni, faculty and guests. It was a distinct success.

The graduation exercises were held at Memorial Hall on the University campus on Friday evening. The Chancellor, Regents Anderson, Coupland, and Whitmore, and all of the deans of the various colleges were in attendance. Rev. I. F. Roach acted as chaplain of the evening. The chorus of the School of Agriculture of seventy voices, in charge of Mrs. Carrie Raymond, sang several very fine selections. The address of the evening was given by Dean Eugene Davenport of the College of Agriculture of the University of Illinois. His subject was "Agriculture as a Career." In eminently sane and sensible phrases and logic he presented to the sixty young people composing the class the opportunity for work, usefulness, and a real career offered by the farm.

Thirty military commissions, given by the state of Nebraska, were presented by Commandant H. E. Yates to the officers of the cadet regiment. Chancellor Avery presented the certificates of graduation to the members of the class. Those receiving them were as follows:

List of Graduates

Adams, Orra Scott
Beebe, Henry Curtis
Bern, Carl Elmer
Boslaw, Frances
Campbell, Arthur Webster
Coupland, William Cressy
Croft, Paul Henry
Delano, Lois Elsie
Fishback, Ethel Grace
Ford, Edna Euphemia
Gage, James Wendell
Gingrich, Fred Jacob
Goffe, Jay Emory
Graff, Raymond Chester
Hansen, Veda Laurenza
Hill, Charles William
Hillis, Richard Gilbert
Hoch, Edwin Franklin
Huston, Harry Edwin
Johnson, Gladys
Johnson, Herbert Lewis
Johnson, Roy Chester
Johnston, Forrest Raymond
Jones, Arian Hempel
Jones, Henry Albert
Jones, William Thomas
Keuten, Diedrich
Kindig, Albert Sidney
Layton, Iva Marie
Liebers, Hedwig Antonia
Lindberg, Frederick Wilhelm
Lindberg, Elinor Spurgeon
Luckey, Hattie Franke
Lynn, Laura Marie
McCarthy, Joseph Thomas
McDonald, Allen Herbert
Major, Alford Monroe
Marshall, Leila Fern
Miller, John Louman
Moore, Robert Leo
Nelson, Edwin Clark
Novotny, Jaroslav
Ollis, Ruth Eleanor
Otto, Homer N.
Otto, Roy Basting
Paulus, Frederick William
Philipsen, Moldt Henry
Pickering, John Philip
Ring, Susannah
Roy, Edwin Earl
Schoenbeck, Helen Mary
Sell, Albert Emil
Sjogren, John Wilhelm
Smith, Charles Ray
Snyder, Russell Charles
Swanson, Philbert Oscar
Thompson, Benjamin Harrison
Thrapp, Elmo Edward
Trotter, Harley Elijah
Zeller, Florence Lucile

THE NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS.

The aim of the North Central Association of Colleges and Secondary Schools is, first, to bring about a better acquaintance, a keener sympathy and a heartier co-operation between the colleges and secondary schools of this territory; secondly, to consider common educational problems and to devise best ways and means of solving them; and thirdly, to promote the physical, intellectual and moral well-being of students by urging proper sanitary conditions of school buildings, adequate library and laboratory facilities, and higher standards of scholarship and of remuneration of teachers. The Association is a voluntary organization consisting of representatives of both secondary schools and colleges, is devoted solely to the highest welfare of the boys and girls of this territory, and it bespeaks the cordial and sympathetic support of all school men.

The following constitute the standards for accrediting secondary schools for the present year:

1. No school shall be accredited which does not require fifteen units, as defined by the Association, for graduation. More than twenty periods per week should be discouraged.

(A unit course of study in a secondary school is defined as a course covering an academic year that shall include in the aggregate not less than the equivalent of one hundred and twenty sixty-minute hours of class-room work, two hours of manual training or laboratory work being equivalent to one hour of class-room work.)

2. The minimum scholastic attainment of all secondary school teachers of academic subjects shall be equivalent to graduation from a college belonging to the North Central Association of Colleges and Secondary Schools. It is strongly advised that this attainment include, or be supplemented by, special

study of the content and the pedagogy of the subject taught. Such requirements shall not be construed as retroactive.

3. The number of daily periods of class-room instruction given by any teacher should not exceed five, each to extend over at least forty minutes in the clear. The Board of Inspectors will reject all schools having more than six recitation periods per day for any teacher.

4. The laboratory and library facilities shall be adequate to the needs of instruction in the subjects taught as outlined by the Association.

5. The location and construction of the buildings, the lighting, heating and ventilation of the rooms, the nature of the lavatories, corridors, closets, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both pupils and teachers.

6. The efficiency of instruction, the acquired habits of thought and study, the general intellectual and moral tone of a school are paramount factors, and therefore only schools which rank well in these particulars, as evidenced by rigid, thoroughgoing, sympathetic inspection, shall be considered eligible for the list.

7. The Association will decline to consider any school whose teaching force consists of fewer than four teachers of academic subjects, exclusive of the superintendent. The Association recommends the introduction of the so-called vocational subjects, such as Agriculture, Manual Training, Household Arts, and Commercial Subjects into schools where local conditions render such introduction feasible, but the inspectors will hold that a sufficient number of qualified teachers must be added to provide adequately for such instruction.

8. No school shall be considered unless the regular annual blank furnished for the purpose shall have been filled out and placed on file with the inspector. In case of schools having twelve or more teachers a complete report on teachers once in three years will be sufficient; but full data relative to changes should be presented annually.

9. All schools whose records show an excessive number of pupils per teacher, as based on average number belonging, even though they may technically meet all other requirements, are rejected. The Association recognizes thirty as maximum.

10. The time for which schools are accredited shall be limited to one year, dating from the time of the adoption of the list by the Association.

11. The agent of communication between the accredited schools and the Secretary of the Commission for the purpose of distributing, collecting, and filing the annual reports of such schools and for such purposes as the Association may direct, is as follows:

a. In states having such an official, the Inspector of Schools appointed by the state university. b. In other states the Inspector of Schools appointed by state authority, or, if there be no such official, such person or persons as the Secretary of the Commission may select.

The Association is very conservative, believing that such action will eventually work to the highest interests of the schools and the Association. It aims to accredit only those schools which possess organization, teaching force, standards of scholarship, equipment, esprit de corps, etc., of such character as will unhesitatingly commend them to any educator, college or university in the North Central territory. Wherever there is reasonable doubt concerning the standing of a school, the Association will accept that doubt as ground sufficient to justify rejection.

Nebraska List, 1912.

Albion
Ashland
Auburn
Aurora
Beatrice
Blair
Brownell Hall (Omaha)
Columbus
Crete
David City
Doane College Academy
Falls City
Fairbury
Franklin Academy
Fremont
Friend
Geneva
Grand Island
Hastings
Hastings College Academy
Havelock
Hebron
Holdrege
Kearney
Lincoln
McCook
Nebraska City
Nebraska Military Academy
Nebraska Wesleyan Academy
Norfolk
North Platte
Omaha
Pawnee City
Plattsmouth
Schuyler
Seward
South Omaha
Superior
Teachers College High School
Tecumseh
University Place
Wahoo
York

SHALL ORGANIZED PLAY BE MADE A REGULAR PART OF THE PUBLIC SCHOOL CURRICULUM?

G. W. A. Luckey, Ph. D., Head Professor of Education, University of Nebraska.

(Read at the meeting of the American Physical Education Association, Indianapolis, March 3, 1910. Reprinted from the American Physical Education Review, October, 1910.)

I am aware that criticism is apt to follow any change in the established order of things. This is especially true with the attempt to reorganize the public school system established by years of custom and tradition. Whatever is, is right, seems to be the accepted thought of many people. To overcome the inertia of existing conditions requires unusual effort, but progress necessitates change, and truth is void of fear.

The thoughts which I bring to you on this occasion are meant for sympathetic ears. I believe them true, but they are still crude and lack the careful organization necessary to convince the less observing public. They are but chips from a student's workshop indicating, it may be, the direction of the current, and the nature of the material upon which he is working. Different as some of the thoughts are from present practices, if true, they cannot be denied a place; if false, they will exert but little influence.

If we turn in our thoughts to the period that represents the highest civilization of the Greeks (500 to 350 B. C.) we find that then, more than at any other time, the entire boy went to school. Besides the attention given to education in the home, there were pedagogues, special tutors and at least two schools which the son of every citizen attended daily. The one school, known as the palaestra, was devoted to physical training; the other, known as the music school, was devoted to literary and intellectual training. These schools were sometimes conducted in the same building and many of the exercises, like dancing and drilling, with the accompanying music, developed both the physical and mental, moral and

religious, body and soul. Both schools were in session from early morning until evening, usually from sunrise to sunset. The smaller boys—seven to fourteen—went to the palaestra in the morning and the music school in the afternoon, while the larger boys—fourteen to eighteen or twenty-one—reversed the order. The reason is apparent: with the younger children the physical development is first; with the older, the intellectual becomes more essential. Each thus receives the most appropriate training at a time of day and of life best fitted for it.

The early Romans, likewise, in building up their highest and best civilization laid special stress on the development of the physical along with the mental and moral. Whether in the home, the field, the camp, or the forum the Roman youth was taught to exercise, think and do as though they were but parts of one and the same act. It was only in later years, after the Romans had accepted the ideals of the more cultured Greeks, that they became indolent, immoral and impotent. They had made the mistake of adopting ideals without adapting them.

It is true that the Greeks, with their excellent ideas of education, did not succeed as a nation. But many causes combined to make them an easy prey to the more virile Romans. Chief among these were the loss of faith in the ideals of the fathers, the lack of a common purpose, the degradation of the masses, and internecine wars. As the Greeks gave way to the Romans, so the Romans, in turn, were overcome by the Germanic tribes of the north, physically strong and aggressive, but intellectually weak and barbarous.

It was at this stage of civilization that occurred one of the most remarkable events of all history—the life and teaching of the Nazarene. It was a new spirit bestowed on His disciples and exemplified in a life without "spot or blemish." It taught the universal fatherhood of God, the brotherhood of man, the sacredness of marriage and the purity of the home. It also demanded health and purity of the body—the temple of God, and elevated child-life by conceiving children as the gift of God and not as the property of man. If not the first, it was by far the clearest expression of the doctrine that we learn to do by doing—"whosoever heareth these sayings of mine, and doeth them, I will liken him unto a wise man, which built his house upon a rock." It was not the destruction of the law but the fulfilment; the living embodiment of the law of service. "Not by might, nor by power, but by my spirit, saith the Lord of hosts." "Whatsoever ye would that men should do to you, do ye even so to them." "If thine enemy hunger, feed him; if he thirst, give him drink."

Broad and inspiring as these thoughts were to the downtrodden masses, they had to make headway, if at all, through the civilizations and the governments as they then existed. Whatever the nation, whatever the people, the first and all important thing was to establish the new doctrine in the hearts of the people: "Seek ye first the kingdom of God, and his righteousness."

It is not an easy matter to change the ideals of a nation under the most favorable circumstances, but the conditions under which the early church fathers had to work were appalling. Nation gave way to nation, empire to empire. There was no stability anywhere, and for the first thousand years nearly every change seemed for the worse. Under these conditions education was out of the question; besides, to increase knowledge without adding also the spirit of the new life, seemed but to add to the strength of evil. Hence it should not create surprise that the whole truth of the Master's teaching was not seen, or if seen was not given forth in its true meaning.

At first all attention was given to the spiritual life, "You must be born again." Which means, I take it, that you must be inwardly awakened and aroused to the necessity and beauty of the higher social and spiritual life. Asceticism so prominent in the early church, due to the condition of the times and the failure to grasp the full meaning of the Master's teaching, was indifferent to the development of the body if not wholly antagonistic.

As governments became more stable there was a revival of learning which in the period of the Renaissance covered many activities and spread far and wide, but everywhere built upon the false hypothesis that the development of the mind is distinct from and unconnected with the development of the body. In fact, it has often been advocated that complete development of the body hinders or interferes with the highest development of the mind. Built upon such premises our schools have continued for the most part as mental factories, cramming institutions, where a dilettante intellectualism is propagated, and where desiccated knowledge warranted not to ferment or cause mental disturbance is kept inviolate, and through a process of memory passed on to future generations.

This may seem like a strong arraignment of the public schools, but is it not true? There was a time when, as a people, we knew no better, but that time is past. We either know better now or ought to. Science has enabled us to discover many truths whether we use them or not. One of these truths is, that mind and body are but parts of one and the same whole. Whatever affects the one affects the other. Neither can the one be truly developed without developing the other.

Under normal conditions mental hunger is as natural as physical hunger. The soul in order to live and grow must be fed as well as the body. How different this seems in our schools. Tell the normal boy that owing to the health of the cook he may have several days' rest from eating; note his disappointment. On the other hand, tell him that owing to the sickness of the teacher he may have a few days' vacation, and hear his ejaculation, "Good!" Why is this? Why do normal children dislike school? Is it not because we are not truly feeding them, and supplying the real needs of life? Feed the child on husks and he will no doubt tire of eating. The best material may prove husks if it is not assimilated and made a part of the living tissues.

The thought is becoming more and more general that our schools are not meeting as completely as they might the needs of the times. We have followed too slavishly the subjects and methods of the past and have not made sufficient use of scientific knowledge in adjusting ourselves to the conditions of the present. The blame does not rest with any particular institution nor with any class of our citizens. The home, the school, the press, the church, organized society, and the state, must all share in the criticism. Probably two-thirds of the time and energy given to public education is wasted. First, because of unscientific methods; second, because we do not have the whole boy in school. When we

awake from our slumbers and remove some of the unnecessary ignorance, we will eradicate this waste and put a dynamic force into the civilization that will be a surprise to the most progressive nations of the world.

How is this to be accomplished? I think it may be brought about by a reorganization of our public school system, vitalizing the whole and bringing it into harmony with the laws of true development. We must organize and bring into closer relation the various forces that have been established for the betterment of health and the social life, and concentrate their efforts in the direction of the home and the public schools.

We must change our definition of education. It is not the acquisition of knowledge, nor alone mental and moral development. It is all of these but much more. It is in the broadest sense the process of development or of bringing into efficiency latent possibilities. But our definition of education must be broad enough to include the giving of life, health, energy, and such balance of mind and body as will develop the greatest culture and the deepest insight. Besides giving us healthy minds and bodies alive to the finger tips, our education must teach us to feel keenly, to think clearly, and to act wisely. When we fall short of this we are one-sided and lack the balance which is essential to the best development.

The purpose of education is to lead individuals out of ignorance and selfishness into truth and service. But the process is one of internal change and cannot be accomplished through external veneer. To develop virility the process of education must be one in which the whole organism is simultaneously affected. The physical, motor, mental, spiritual, are only parts of the same whole and must be developed together and in unison in order that the individual may command himself. Just as breathing, circulation, digestion and assimilation are continuous processes in the healthy individual, so are motor and mental energy always accumulating and demanding expression.

In the reorganized school, and I have in mind now especially the elementary grades, the entire boy will go to school. He will leave home in the morning with pleasant anticipations, and return in the afternoon with regrets that the day was so short. The school day will consist of from four to six hours, depending upon the grade. The school year will consist of at least ten months. The exercises of the day will be divided into three parts. Beginning with the lower grades the first hour and a half will be devoted to organized play, with and without music. The object of this play will be to develop health, energy and efficiency. The teacher and every child will take part.

Then will follow an equal period devoted to intellectual work. The fullness of life gained by the teacher and pupils in the play period will help to intensify and vitalize the intellectual period. The third period of the day will be devoted to industrial life—manual training, domestic science, writing, drawing, and such forms of science and laboratory work as tend to place the child in living touch with the essential things in the life about him. The upper grades will have similar periods of work and play, but in a reversed order. They will begin in the morning with intellectual work which will be intensive and last about two and a half hours—never more than three—interspersed with change and rest periods. The intellectual work will be followed by motor or industrial work and that in turn by the organized play period. It will be better if the same teacher leads her children through all these divisions of the day, thus gaining from each the life and energy that is essential to the best teaching. No one can give life and energy to others who has not a surplus. A lifeless teacher makes a lifeless school and what is more an unprogressive civilization. For the sake of our children our teachers need rest and recreation. No one can with advantage and safety devote more than two or three hours to intensive brain labor per day, and the teacher is no exception. I think that all who have studied the subject will agree that a few hours of intensive labor is worth far more in building true character than innumerable hours of dilatory effort. Such study and exercise are possible under the plan I have outlined.

Many have recognized the necessity of play and have organized playground movements. But you can never vitalize the teaching until play—the deepest and most natural instinct of the human soul—and the various forms of motor activity are made a regular part of the school curriculum. Three separate institutions, one for the intellectual, another for the physical, and still another for the industrial life will not answer. Such a condition means in time the failure of all.

In the development of the individual if we make use of the play instinct to give health and beauty of body, of motor activity or laboratory work to give meaning and accuracy to our thinking and through these give opportunity for the expression of the best in the soul, we will have accomplished more toward vitalizing our schools than can be done in any other way.

The criticism may be raised that the above plan does not give sufficient attention to the intellectual life. Is it possible to crowd into two or three hours per day the many subjects and facts that are thought to be necessary in the completion of the common school curriculum: I answer yes, and when these subjects are vitalized as indicated above, they can be taught with far greater meaning and in much less time than is now given to them.

The limits of this paper will not permit me to work out the form and nature of the new curriculum. Suffice it to say that the new curriculum will be enriched and enlarged by reducing the number of subjects and vitalizing the material. All facts that are worth teaching will be taught in such a way as to make them live again in the experience and life of the individual. No subject is worthy a place in the elementary school that is not equally valuable for all. The public school is the only completely unifying factor in our civilization, and for this reason, if for no other, its interests should be zealously guarded. To this institution we have justly ascribed the term **common school**, and the work offered here aims to give a **common** education.

What, then, are the subjects that are equally essential to all? They must be truly fundamental and fit equally well into any scheme that has for its purpose the making of true men and women. The subjects may be designated as follows: First, reading, under which should be included the study of the native language and such literary, geographical and historical facts and material as are necessary to give meaning and validity to the individual's thinking; second, writing, including the various forms of written expression; third, drawing, model-

ing and pattern making; fourth, music, including acting, drilling and other forms of expression not brought out under the subjects named above; fifth, mathematics, covering only the essentials, and all elementary science that can be made vital through the social and industrial life that the individual is at the time living. This is the irreducible minimum which every child should know and appreciate, yes, and be able to intelligently execute, before he is old enough to leave the elementary schools. It is essential to life, the birthright of all, and equally important whatever the future of the individual. Vitalize the schools as I have indicated by making use of the play instinct and motor activity in connection with the processes of thinking and expression, and you will be able to accomplish all of this and more with ease. For thus we nourish the soul, forming true habits of feeling, thinking, doing, that enable the individual to live in the truest sense.

You know the thing that fills our almshouses, jails and penitentiaries is one-sided development. Early specialization may sometimes make the genius, but it also makes the grafter, the criminal, the thief and the vagabond. The great need of the hour is for men, large men, balanced men; men who dream great dreams of a higher life, and have the intelligence, courage and energy to put these dreams into action for the good of humanity; men who would rather suffer than cause others to suffer.

THE STUDENT HOUR.

One is struck in any study of collegiate conditions with the absence of any gauge of efficiency which even remotely resembles, for instance, profits in an industrial undertaking. Anyone investing money in a business may with some reason be rather carefree as to the manner in which that business is administered, because at the end of any given period he has an opportunity of judging the management by the profits earned on his investment. In the same way, a man who is at the head of a business can devote much or little time to the supervision of any one department with the thought that at a given date the books will be closed and the management of that department will be fairly accurately reflected in the excess of receipts over costs. One looks in vain for anything analogous to this in education, and after the larger question of the type of management has been determined, perhaps next in importance is to get some gauge or measure which can be used as a means of comparing the work of one department with another inside of the same institution: and the work of similar departments in two institutions, and in fact of one institution as a whole with the work of another. Any such basis of comparison that might be adopted now would probably have to be, at least in a measure, modified, as college administration develops, but before any progress is possible some selection must be made, and the writer wishes to suggest as perhaps the most immediately available unit the student hour.

By a student-hour is meant one hour of lectures, of laboratory work, of recitation-room work, for a single pupil. Thus, a section of thirty students on a three hours' laboratory period would mean ninety student-hours. This seems to afford a unit which can be used for a great many different purposes. With this as a basis, we can get some tally on the efficiency with which the buildings are operated, the cost of under-graduate teaching, and each of several other items which go to make up the expenses of a university. Little or no value will attach to the student-hour as a mean of gauging the cost of research teaching. It is believed that the student-hour will be found to be a valuable gauge for collegiate effort even where cost is not involved. The use of the student-hour will be further developed under the head of financial administration.

Without question, after the student-hour has been used for a period, various methods will suggest themselves whereby it can be made more serviceable as a unit, or other units better adapted to the purpose will be proposed.

The student hour can be used in some places by weighting it, where otherwise it would have little value. Thus, in discussions of what should constitute a term's work for a teacher, one lecture hour would probably count as the equivalent of two or three laboratory hours. The adoption of some unit, even though it is not any more generally satisfactory than the student-hour, will quickly lead to many standards now much needed. I was able to discover, for instance, no very generally accepted relation between the arduousness of laboratory, lecture-room and recitation-room work either for pupil or instructor. It would seem that some working rule in this matter would be almost necessary in apportioning work between the various teachers in a department.

In judging costs especially, it will be necessary to take into consideration the different grades of student-hours. Thus elementary work will always cost less than the more advanced principally because of the relatively larger sections. A school having a large number of graduate students would, other things being equal, of course show higher student-hour costs.

It was suggested above that in judging the value of research by its cost the utmost caution should be used. The same kind of caution and the nicest judgment will be required in noting the relative costs of student-hours in different branches. There will be some branches doubtless in which the cost per student-hour will be practically the same. But there will also be some branches in which the cost per student-hour will be high as compared with the average. It should be borne in mind that the cost per student-hour has absolutely no value in distinguishing relative educational values. It is only to show what the cost is in each branch. With this cost known, it will be much easier to decide whether or not a given school is warranted in continuing a given branch.

The great advantage of the student-hour is that it is small enough to get inside of all the various combinations of courses, schools, departments, etc. The student-hour will be as full of meaning when it is used for keeping costs of a college of engineering including any number of departments or courses, as it will be in keeping the cost of a single lecture course.—Mr. Morris L. Cooke, in Bulletin No. 5, Carnegie Foundation.

Applications for men to fill positions in other schools are being received frequently at the College of Agriculture. Within the last few weeks requests for a teacher of agriculture in the Normal School at Lewiston, Idaho; a teacher of agriculture in a high school in Minnesota, and a position with the Bureau of Plant Industry on an experimental farm in Colorado, have been received. These positions are worth about $1,200 each. Persons interested in the same can secure information from the Dean of the College of Agriculture.

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